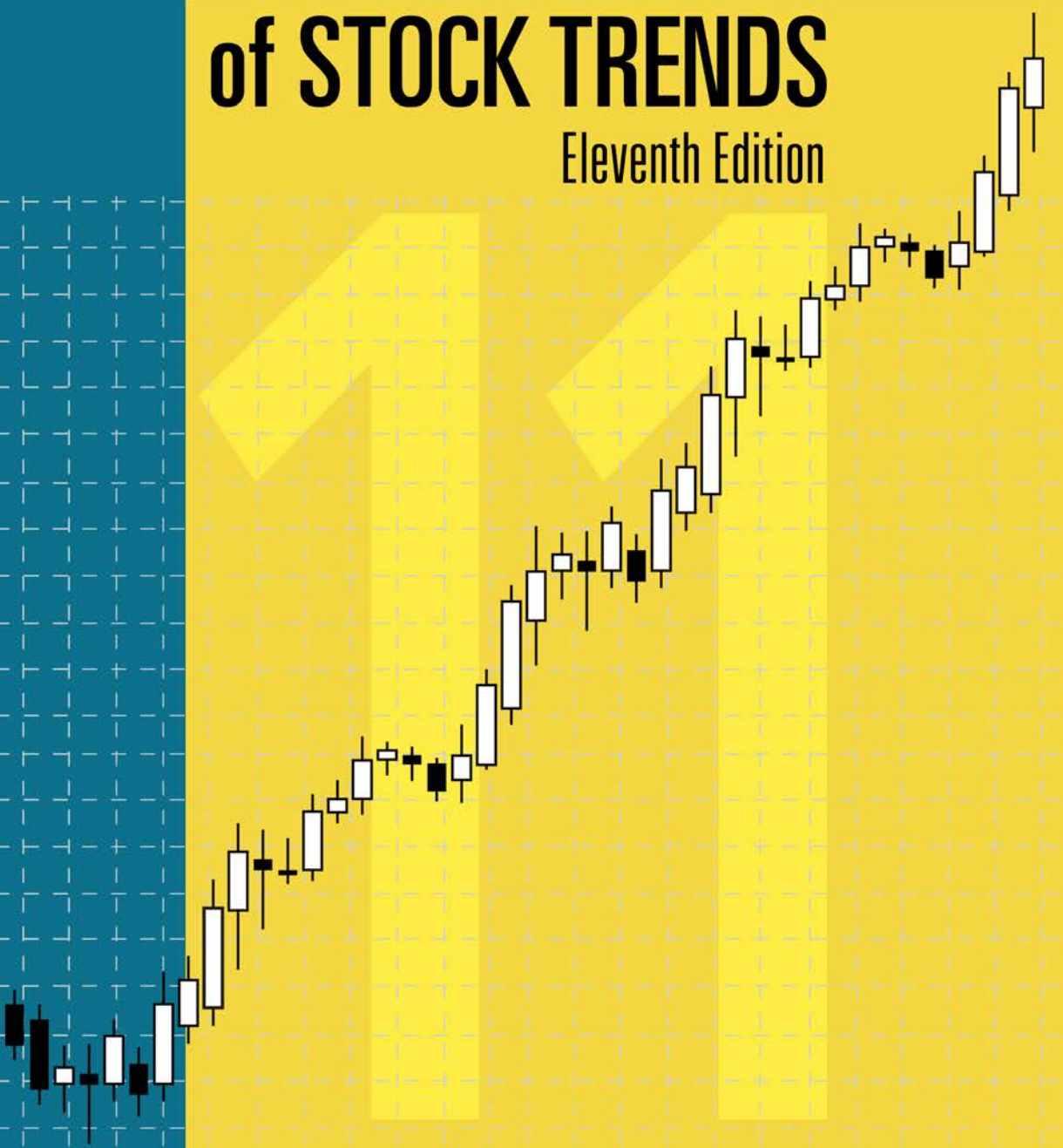


TECHNICAL ANALYSIS of STOCK TRENDS

Eleventh Edition



Robert D. Edwards
John Magee
W.H.C. Bassetti

 **Routledge**
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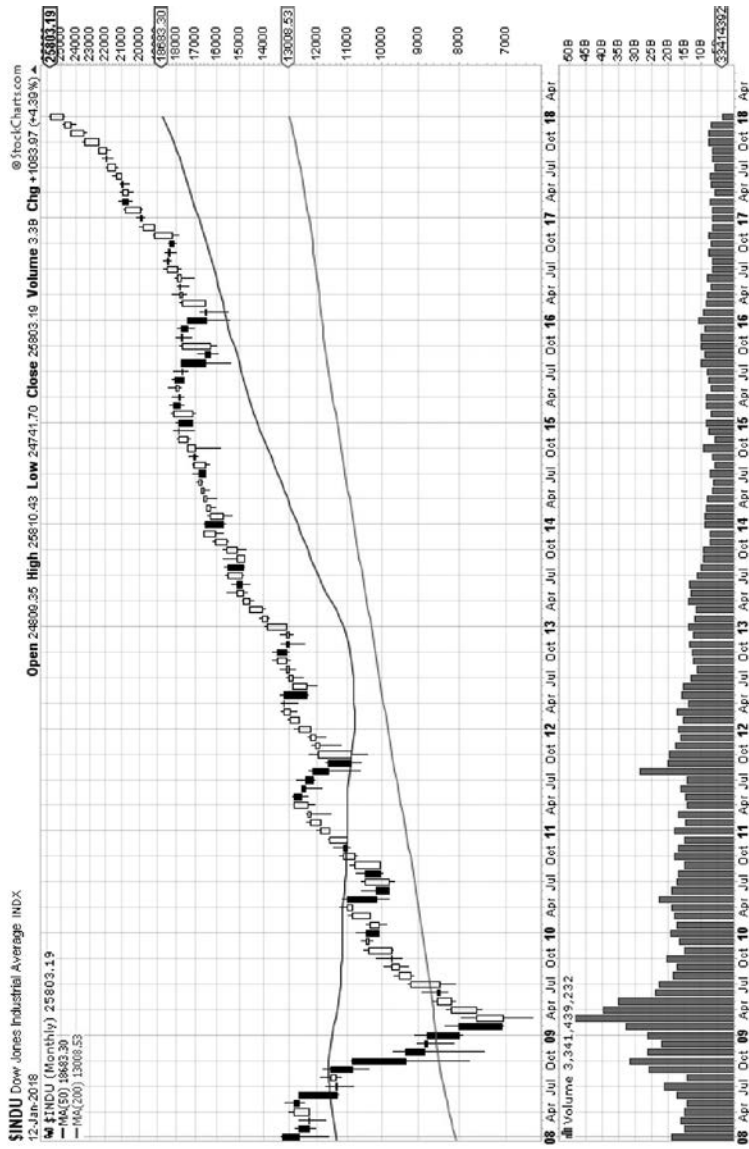


Figure 0.1 DOW 25000! What a birthday present for the 11th edition! The Dow continues to set records since March of 2009, as vividly illustrated by this chart.



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Preface to the eleventh edition

Beyond Edwards & Magee

I would be remiss if I did not note the passing of two important figures in the discipline of technical analysis—Richard Arms Jr. and Professor Hank Pruden of Golden Gate University. Well liked and admired they leave large gaps in the community. The article here by Arms is literally his last contribution to the field. Long the central figure in San Francisco, Hank Pruden, much loved and admired leaves the entire field with an enormous gap. He was my particular friend and mentor. He will be infinitely missed.

The reader is advised to read the prefaces to previous editions. They are of a piece with the internal text and some practices—of notation and treatment may not make sense otherwise. Those who think gender should be catered to will find my previous comments on that issue. Why repeat it here?

Let me address the central question focused on by this new edition: This book has studiously ignored an entire field of technical analysis—number driven and statistical analysis. This has left previous new readers without the guidance they need if they are uneasy with the qualitative method as invented (or discovered) by Edwards & Magee. That lack is resolved by Appendix C. There the new reader will find number-driven material presented from the point of view of an Edwards & Magee analyst. There also the reader will find presentations of tools by their creators—a very special treat, and extremely educational. I venture to say any analyst will have his field of vision broadened by Mike Moody's presentation of Point and Figure charting and the tools of Richard Arms, two prominent analysts for whom many of us, especially we chartists, have not given their work the study it deserves.

The list of acknowledgments is as long as a Hollywood awards night. I will shorten it by pointing out previously acknowledged colleagues, assistants, and supporters in previous prefaces. Generally speaking, it is the usual suspects. Some especially merit additional mention here: Nehemiah Brown III, my much-valued and sometime graduate student helps me keep my spreadsheets rational and accurate. My old friend Mark Wainwright (a Tuck graduate) helps me solve technological problems. Part of the pleasure of preparing a new edition comes from interacting with these bright and capable people.

I have not mentioned Ralph Vince (a formidable figure) or Chris Glon, Richard Arms, and Mike Moody.

My efforts have been made easier by the support of Chip Anderson of stockcharts.com, an invaluable resource. I am also indebted to thinkorswim. If I mention them often it is a measure of their importance to my work—and not a paid promotion.

W. H. C. Bassetti
San Francisco, California
June 15, 2018



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Preface to the tenth edition

A 10th milestone

Sixty-three years. Sixty-three years and *Technical Analysis of Stock Trends* still towers over the discipline of technical analysis like a mighty redwood. An evergreen sequoia. And now a 10th edition. It is a propitious moment to refresh it for the new millennium, to prune its solecisms and obsolescence, and to further develop the sometimes prescient work of its originators.

With this premise in mind, I have attempted to make the book shorter, simpler, and more usable in the modern context. I know there are still manual chartists out there. Occasionally they are ecstatic when they find that—as a profit-losing service—I still have TEKNIPLAT™ chart paper in my attic. Like travelers in the desert finding an oasis.

But they are the 1%. Everyone else uses software, desktop or internet to do his charting (See note “About Gender” in the Preface to the eighth edition.). So, I have excised the material on manual charting from the new edition. Budding manual chartists may always turn to the eighth and ninth editions. I have also deleted Magee’s chapters on “Composite Leverage” (Chapter 42 in the seventh edition, Appendix A in the eighth) as they are abstruse and cumbersome in the modern context—not to mention being rooted in manual chart analysis. I have made every attempt to summarize and replace Magee’s work, as I believe it has intellectual validity. Primarily this is done in the present Chapter 42. I repeat, Magee’s thinking and practical work predated much modern portfolio management and volatility theory. Additionally, Modern Portfolio Theory has still not caught up to his work on trend analysis and risk. All this material is available in previous editions.

I have moved, perhaps, the most difficult chapter in the book, Chapter 4, to Appendix A. Edwards’ chapter on the minutiae of the operation of Dow Theory has stopped more than one reader cold. Now it is available to the detail scholar, and the general reader is relieved of the necessity of slogging through it.

Many critics deplored Chapter 16 from the seventh edition, which I relegated to an appendix in the ninth edition. This chapter covered an analysis of futures and derivatives using number-driven analysis. Critics said it was shallow. More important, it was completely extraneous to the theme of the book, chart analysis, not the exploration of statistical routines and indicators, which is a different branch of technical analysis. There are numerous books on the subject, starting with Murphy, Kirkpatrick, and Kaufman. I have deleted it along with other material in the book that was not compatible with Edwards and Magee’s original intent.

I quote here appropriate remarks from the preface to the eighth edition:

About apparent anachronisms

Critics with limited understanding of long-term trading success may think that discussions of “what happened in 1929” or “charts of ancient history from 1946” have no relevance to the markets of the present millennium. They will point out that AT&T no longer exists in that form, that the New Haven has long since ceased to exist as a stock, that many charts are records of long-buried skeletons. This neglects the value of the charts as metaphor. It ignores their representations of human behavior in the markets which will be replicated tomorrow in some stock named today.com or willtheynevergetit.com. Even more important, it ignores the significance of the past to trading in the present. I cite here material from Jack Schwager’s illuminating book, *The New Wizards of Wall Street*. Schwager, in conversation with Al Weiss: “Precisely how far back did you go in your chart studies?” Answer: “It varied with the individual market and the available charts. In the case of the grain markets, I was able to go back as far as the 1840s.” “Was it really necessary to go back that far?” Answer: “Absolutely. One of the keys in long-term chart analysis is realizing that markets behave differently in different economic cycles. Recognizing these repeating and shifting long-term patterns requires lots of history. Identifying where you are in an economic cycle—say, an inflationary phase versus a deflationary phase—is critical to interpreting the chart patterns evolving at that time.

Identification of original manuscript and revisions

True believers (and skeptics) will find here virtually all of the original material written by Edwards and Magee, including their charts and observations on them. Changes and comments introduced by editors since the fifth edition have been rearranged and, when appropriate, have been identified as a revision by that editor.

Maintaining this policy, where updates to the present technological context and market reality were necessary, the present editor has clearly identified them as his own work by beginning such annotations with “EN” for Editor’s Note. (The eighth edition was the first to use editor’s notes. Editor’s notes for the ninth edition are identified as EN9, and notes added for the present edition are identified as EN10).

So, we have here a simpler, shorter, clearer edition of the famous book—easier to read, easier to understand, and easier to use. None of the considerable virtues of the book have been affected. I have attempted to add to these virtues with my work on Magee’s Basing Points Procedure (see [Chapter 28](#), 28.1, and 28.2) and portfolio control and risk (see [Chapter 42](#)).

In spite of my remarks, I have listened to critics of the hand-drawn charts in this book. These charts are the glory of the book and of the discipline of technical analysis. Their application to modern markets seems ridiculously obvious to me—and I am perhaps a dinosaur. So, I have decided to take a number of examples of the manual charts and post them at <http://www.edwards-magee.com> along with the same data charted by computer so skeptics can compare the two methods. These will be found at <http://www.edwards-magee.com/manualcharts.html>.

The internet so extends one's capabilities and is so easy to use that it would be irresponsible not to avail oneself. In [Figures 9.2 and 9.3](#), I have printed charts that demand—scream—to be viewed in a larger format. These will be found at <http://www.edwards-magee.com/supercharts.html>.

The reader is urged to read the prefaces to the eighth and ninth editions. I have not repeated here all the editorial conventions detailed in those prefaces.

W. H. C. Bassetti

San Francisco, California

Acknowledgments for the tenth edition

So many colleagues and friends contribute to a book like this that one is in danger of getting into the Academy Awards syndrome—endless thank yous and acknowledgments until they bring out the hook and pull you off stage. So, I will not thank my parents and aunts and uncles and wife and family, although they should be and by this mention are thanked.

More particularly, acknowledgments are due to my editorial and research assistant, Carlos Bassetti.

My colleagues at Golden Gate University (GGU) are an invaluable source of advice, wisdom, and support, particularly Professor Henry Pruden. It is no mystery why he is internationally known and respected—besides being a world authority on Wyckoff. GGU has also furnished me with an unending supply of bright, formidable graduate students who have made major contributions to my work and to my thinking. Nehemiah Brown does his best to keep me semi-organized as to spreadsheets. Matt Mullens and Brian Brooker have assisted me with many of the Basing Point studies herein. Stergios Marinopoulos has stimulated and challenged me in my systems work. All these people are members in the local technical analysis fraternity and our much-valued organization, the Technical Securities Analysts Association of San Francisco.

More remote colleagues have also assisted me in many invaluable ways—Jack Schanep with Dow Theory data, Robert Colby, also with Dow data; Tim Knight with Prophet data (now part of <http://www.thinkorswim>, <http://www.tdamertrade.com>), Chip Anderson at <http://www.stockcharts.com>, and Scott Brown of Metastock for support with charting software.

I am indebted to Ralph Vince and Nelson Freeburg for material found herein that increases the value of this book.

And finally, amigo Franaise, and fellow chart enthusiast Chris Glon at <http://www.publiccharts.com>, for his charts, assistance, and friendship. He has supplied some of the most interesting charts in this book.



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Preface to the ninth edition

Warp speed universe. Warp speed financial markets. The eighth edition of this classic book appeared when it seemed the millennium and paradise had been achieved and that, like Mackay's Tulipomania, the price of stocks would rise forever and men would rush from the world over and pay whatever price was asked for what-was-its-name.com, internet groceries, or ihype.com or icon.com or gotcha.com. and, feature this, *Dow 36,000*. The bubble was just in the process of bursting, of course. Before it burst, fabulous fortunes were made by roller blader and scooter tycoons and by young geeks with nothing but chutzpah and a laptop. One of my favorite stories is of the young entrepreneur who said, "Why don't I deserve it (the \$100 million he made in the IPO)? I've devoted three years of my life to this project." He is now dead.

Now, many of those people are in prison and the hangover lingers on along with lying, cheating, and stealing on all sides. From Enron to Arthur Anderson, billions, if not trillions, fell into a black hole. As all this developed, I warned of the impending collapse in the John Magee Investment Letters on the web. There was nothing magical or brilliant about seeing what was going on; perspective and perception came from applying the lessons taught in this book by Edwards and Magee. Like Benedict XVI (in a different area), I am a humble worker in their vineyard.

I press on attempting to modernize (where necessary) and extend their work, fit it to the modern situation, and make it even more useful to current day traders and investors.

In this ongoing labor of love, I have been immeasurably assisted by my graduate students and colleagues at Golden Gate University in San Francisco. In constant interaction with them I have been stimulated to see important aspects of Edwards and Magee's work and develop and emphasize these elements in my teaching and in this new edition.

Specifically, both long-term and short-term traders will find important new material in this edition. In my graduate seminars, I have seen the power of what Magee called the "Basing Points Procedure" and so have extended the treatment of this material. My interest in, and respect for, Dow Theory has recently increased as the result of a paper done with Brian Brooker for the Market Technicians Association ("Dissecting Dow Theory"). Material from that paper will be found in this edition. Short-term traders and futures speculators will appreciate extensive new material on commodity trading. These traders have been entirely too influenced by mechanical number-driven systems of recent years and need to restore perspective by mastering the material of this book.

It was never the intent of this book to forecast or analyze current markets; rather, its purpose was, and is, to learn from history and the past to better deal with the present and the future. Current markets are analyzed (and forecast?) at the John Magee website. Nonetheless, the very process of keeping current involves picturing issues and instruments in play. The major indexes themselves in 2005 are in play, along with gold, silver, and oil. We don't know how they will pan out, but we can make an analysis with *the data we have*, for this is the situation the analyst is faced with every day. He doesn't know how it will turn

out, but, by following the methods and principles taught in this book, he can put himself on the right side of the probabilities.

This is no idle remark. The power and effectiveness of classical chart analysis can be seen by examining how it performed in the past at critical times. At the John Magee Technical Analysis website, the following comment was made in January 2000:

Dow: The Dow can expect to find support at 10000 and is buyable, but in small commitments or portions of a portfolio or additions thereto. We expect to see it in a very large see saw from 9–12000 for some time and would hedge at the high end and increase commitments and lift hedges on oversold conditions at the low end.

In November 2000, the following comment was made:

November 18, 2000

There is really only one chart pattern of significance in these markets, and that is the big one, more than 12 months long now, and the pattern is a big serpent, whipping back and forth and, as Shakespeare said, signifying nothing. Nothing that is but more of the same. How will we know when it signifies something? Well, we won't really know till we know, but we'll let you know when we know. So, we would continue to pick likely shorts and employ short term trading strategies for traders, and hedge at interim tops and lift the hedges at bottoms. Based on the chart picture and last week's anemic behavior, we would not trade for bounces in the NASDAQ. If anything, it is a short, but a risky one.

These past letters, dramatically illustrating the effectiveness of the methods of this book, may be found online through links at the address specified below. Your editor, personally, is not a genius for having made these analyses. It is the method which is to credit, and any number of my graduate students can make the same analyses, as can any alert chart analyst.

The reader should not skip the prefatory material to the eighth edition. The same practices outlined there have been followed in this edition. Magee said the reader should not skim through this book and put it on his library shelf. Instead, it should be read and reread and constantly referred to and so the reader should, yes, so he should.

Richard Russell, the dean of Dow Theory Analysts, has reportedly said the price of the Dow and the price of gold will cross in coming years. He has also remarked that the S&P appears to evince a 10-year head-and-shoulders pattern. Robert Prechter believes we are at the crest of the tidal wave and the tsunami cometh.

Dow 36,000. Dow 3,000. This book contains the best tools to cope with whatever the future holds.

W. H. C. Bassetti

San Francisco, California

May 1, 2005

A special note concerning resources on the Web

In the age of instant and easy (and free) access to information on the internet, it would be foolish to ignore the opportunities available to interact with the material of this book. The reader will find free materials that augment the book at <http://www.edwards-magee.com>. For example, when the reader learns in [Chapter 28](#) of the Basing Points Procedure, he

will be able to go to the website and print out a PDF of material that he can place beside [Figure 28.1](#) for instant and easy cross-reference, instead of having to turn pages constantly back and forth from the chart to the keys and commentary or having to bend the book into pretzels at a copy machine. In general, wherever references are made in the text to the website, it is for this purpose, to give the reader easy and flexible usage of the material. And, likewise, at this address the reader will find links to past letters that show how the method functioned in real time in real markets.

A special note about Dow Theory

Senator Everett Dirksen said one time that trying to get U.S. senators herded together and moving in one direction was like trying to transport bullfrogs in a wheelbarrow. Trying to synchronize the signals of the various Dow Theory analysts is a similarly challenging proposition. No Ayatollah exists to issue the final fatwa as to whether the signal is valid. Always one to abhor a vacuum, I have organized a committee at Golden Gate University to evaluate pronouncements of signals and opine as to whether the signals are valid. *This committee died an unnatural death, unfortunately, for lack of demand as to its expertise.*

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Preface to the eighth edition

Here is a strange event—a book written in the mid-20th century retains its relevancy and importance to the present day. In fact, *Technical Analysis of Stock Trends* remains the definitive book on the subject of analyzing the stock market with charts. Knock-offs, look-alikes, and pale imitations have proliferated in its wake like seagulls after a productive fishing boat. But the truth is they have added nothing new to the body of knowledge Edwards and Magee originally produced and Magee refined up to the fifth edition.

What accounts for this rare occasion of a book's passing to be a classic? To be more, in fact, than a classic, to be the manual or handbook for current usage?

To answer this question, we must ask another: What are chart formations? Chart formations identified and analyzed by the authors are graphic representations of unchanging human behavior in complex multivariate situations. They are the depiction of multifarious human actions bearing on a single variable (price). On price, converge a galaxy of influences: fear, greed, desire, cunning, malice, deceit, naiveté, earnings estimates, broker need for income, gullibility, professional money managers' need for performance and job security, supply and demand of stocks, monetary liquidity and money flow, self-destructiveness, passivity, trap setting, manipulation, blind arrogance, conspiracy and fraud and double dealing, phases of the moon and sun spots, economic cycles and beliefs about them, public mood, and the indomitable human need to be right.

Chart formations are the language of the market, telling us that this stock is in its death throes; that stock is on a rocket to the moon; that a life and death battle is being waged in this issue; and in that other, the buyers have defeated the sellers and are breaking away.

They are, in short, the inerasable fingerprints of human nature made graphic in the greatest struggle in human experience, next to war.

As Freud mapped the human psyche, so have Edwards and Magee mapped the human mind and emotions as expressed in the financial markets. Not only did they produce a definitive map, they also produced a methodology for interpreting and profiting from the behavior of men and markets. It is difficult to imagine further progress in this area until the science of artificial intelligence, aided by yet unimaginable computer hardware, makes new breakthroughs.

If it is definitive, why offer a new edition?

Unlike Nostradamus and Jules Verne (and many current investment advisors), the authors did not have a crystal ball or a time machine. Magee did not foresee the electronic calculator and made do with a slide rule. And while he knew of the computer, he did not anticipate that every housewife and investor would have 1,000 times the power of a Whirlwind or Univac I on his (her) desk (cf., "About Gender"). In short, the March of Time. The Progress of Science. The Inexorable Advance of Technology.

Amazingly, the great majority of this book needed no update or actualization. Who is to improve on the descriptions of chart formations and their significance?

But insofar as updates are necessary to reflect the changes in technology and in the character and composition of the markets, that is another story. Human character may not change, but in the new millennium, there is nothing but change in the character and composition of the markets. And while regulatory forces might not be completely in agreement, the majority of these changes have been positive for the investor and the commercial user. Of course, Barings Bank and some others are less than ecstatic with these developments.

The most important additions to this book to reflect changes in the times, technology, and markets

Generally speaking, these additions, annotations, and updates are intended to inform the general reader of conditions of which he must be aware for investing success. In most cases, because of the enormous amount of material, no attempt is made to be absolutely exhaustive in the treatment of these developments. Rather, the effort is made to put changes and new conditions in perspective and furnish the investor with the resources and proper guide to pursue subjects at greater length if desired. In fact, an appendix has been provided, entitled *Resources (EN10: now Appendix B)*, to which the reader may turn when he has mastered the material of the book proper.

The stubborn individualist may realize investment success with the use of this book alone (and paper, pencil, ruler, and chart paper [cf., Section on TEKNIPLAT™ chart paper]).

Technology

In order to equip this book to serve as a handbook and guide for the markets of the new millennium, certain material has been added to the text of the fifth and seventh editions. Clearly, the astounding advances in technology must be dealt with and put in the context of the analytical methods and material of the original. To achieve success in the new, brave world, an investor must be aware of and utilize electronic markets, the internet, the microcomputer, wireless communications, and new exchanges offering every kind of exotica imaginable.

The advanced investor should also be aware of and understand some of the developments in finance and investment theory and technology—the Black–Scholes Model, Modern Portfolio Theory, Quantitative Analysis. Fortunately, all these will not be dealt with here because, in truth, one intelligent investor with a piece of chart paper, a pencil, and a quote source can deal with the markets, but that is another story we will explore later in the book. Some of these germane subjects will be discussed sufficiently to put them in perspective for the technical analyst, and then guides and resources will be pointed out for continued study. My opinion is that the mastery of all these subjects is not wholly necessary for effective investing at the private level. What need does the general investor have for an understanding of the Cox–Ross–Rubinstein (CRR) options analysis model to recognize trends? The Edwards–Magee model knows things about the market the CRR model does not.

Trading and investment instruments

The new universe of available trading and investment instruments must be taken into account. The authors would have been in paradise at the profusion of alternatives. In this future world, they could have traded the Averages (one of the most important changes

explored in this book); used futures and options as investment and hedging mechanisms; practiced arbitrage strategies beyond their wildest dreams; and contemplated a candy store full of investment products. The value and utility of these products would have been immeasurably enhanced by their mastery of the charting world of technical analysis. As only one example, one world-prominent professional trader I know has made significant profits selling calls on stocks he correctly analyzed to be in down trends, and vice versa—an obvious (or, as they say, no-brainer) to a technician, but not something you should attempt at home without expert advice. Techniques like this occasioned the loss of many millions of dollars in the Reagan Crash of 1987.

Changes and developments in technical analysis

Have any new chart patterns (that is to say, changes in human behavior and character) emerged since the fifth edition? Not to my knowledge, although there are those who take the same data and draw different pictures from them. How else could you say that you had something new! different! better!? There are other ways of looking at the data that are interesting, sometimes valuable, and often profitable, which goes to prove that many are the ways and gateless is the gate to the great Dow. Point and figure charting have been used very effectively by traders I know, and candlestick charting depicts data in interesting ways. Furthermore, since Magee's time, aided by the computer, technicians have developed innumerable, what I call, number-driven technical analysis tools: (the puzzlingly named) stochastics, oscillators, exponential and other moving averages, etc., etc., etc. It is not the intent of this book to explore these tools in depth. That will be done in a later volume. These concepts are briefly explored in an appendix (Appendix C, 8th edition) supplied by Richard McDermott, editor of the seventh edition.

I have also made additions to the book (see [Chapter 18](#)) to give a perspective on long-term investing, since Magee specifically addressed the second part of the book (on tactics) to the speculator. I have substantially rewritten [Chapters 24](#) and [42](#) to reflect current ideas on portfolio management and risk management. I have expanded on the idea of rhythmic trading—an idea which is implicit in the original. I have expanded the treatment of runaway markets so the internet stocks of the 1990s might be put in perspective (see [Chapter 23](#)).

And then, paradigms. Paradigms, as everyone should know by now, are the last refuge of a fundamentalist when all other explanations fail.

Paradigm changes

Whenever the markets, as they did at the end of the 20th century, depart from the commonly accepted algorithms for determining what their prices ought to be, fundamentalists (those analysts and investors who believe they can determine value from such fixed verities as earnings, cash flow, etc.) are confronted with new paradigms. Are stock prices (values) to be determined by dividing price by earnings to establish a reasonable price/earnings (p/e) ratio? Or should sales be used, or cash flow, or the phases of the moon, or—in the late 1990s—should losses be multiplied by price to determine the value of the stock? Technicians are not obliged to worry about this kind of financial legerdemain. The stock is worth what it can be sold for today in the market.

The crystal ball

Investors will get smarter and smarter, starting with those who learn what this book has to say. The professionals will stay one step ahead of them because they are preternaturally cunning and spend all their time figuring out how to keep ahead of the public, but the gap will narrow.

Software and hardware will continue to advance, but not get any smarter. Mechanical systems will work well in some areas, yet not in others. Mechanical systems are only as good as the engineer who designs them and the mechanic who maintains them. Buying systems is buying trouble. Everyone should find his own method (usually some variant of the Magee method, in my opinion). All good things will end; all bad things will end. The bag of tricks with which the insiders bilk the public will get smaller and smaller. New and ingenious procedures will be developed by the insiders. The well of human naiveté is bottomless. For every one educated, a new one will be born in a New York minute. It is deeply disturbing at the turn of the century that the owners of the NASDAQ and the NYSE should be thinking of going public. Could there be any more ominous sign that enormous changes are about to occur?

Vigorous development of the systems, methods, procedures, and philosophy outlined in this book is about the only protective shield I know of to guard against inimical change.

W. H. C. Bassetti

San Geronimo, California

January 1, 2001

About the editorial practices in this eighth edition

Needless to say, one approaches the revision of a classic work with some trepidation. Every critic and reader has his or her (cf., “About Gender”) opinion as to how revision should be done—whether the authors’ original text should be invisibly changed as though they had written the book in 2000 instead of 1948 and were omniscient, or whether errors and anachronisms were to be lovingly preserved, or footnoted, or ... etc., etc. (I have preserved Magee’s favorite usage of “etc., etc., etc.” against the protestation of generations of English composition teachers because I like its evocation of an ever-expanding universe.)

Notwithstanding every reader having an opinion, I am certain all critics will be delighted with the practices followed in this third millennium edition of the most important book on technical analysis written in the second millennium.

Integrity of the original text

By and large, the fifth edition has been the source of the authors’ original text. Amazingly, almost no stylistic or clarifying emendation has been necessary to that edition. This is a tribute to the clarity, style, and content of the original—one might almost say awesome if the word were not in such currency on “Saturday Night Live” and the Comedy Central. Considering its complex subject was written in the middle of the last century and the markets were one-tenth of their present complexity, awesome may be the appropriate word. No change or update has been necessary to the technical observations and analysis. They are as definitive today as they were in 1950.

While I have preserved the authors’ original intent and text, I have taken the liberty of rearranging some of the chapters. Novices wishing to learn manual charting will find the appropriate chapters moved to appendices at the back of the book, along with the chapters on Composite Leverage and Sensitivity Indexes.

About apparent anachronisms

Critics with limited understanding of long-term trading success may think that discussions of “what happened in 1929” or “charts of ancient history from 1946”

have no relevance to the markets of the present millennium. They will point out that AT&T no longer exists in that form, that the New Haven has long since ceased to exist as a stock, that many charts are records of long-buried skeletons. This neglects the value of the charts as metaphor. It ignores their representations of human behavior in the markets which will be replicated tomorrow in some stock named today.com or willtheynevergetit.com. Even more important, it ignores the significance of the past to trading in the present. I cite here material from Jack Schwager's illuminating book, *The New Wizards of Wall Street*. Schwager, in conversation with Al Weiss: "Precisely how far back did you go in your chart studies?" Answer: "It varied with the individual market and the available charts. In the case of the grain markets, I was able to go back as far as the 1840s." "Was it really necessary to go back that far?" Answer: "Absolutely. One of the keys in long-term chart analysis is realizing that markets behave differently in different economic cycles. Recognizing these repeating and shifting long-term patterns requires lots of history. Identifying where you are in an economic cycle—say, an inflationary phase versus a deflationary phase—is critical to interpreting the chart patterns evolving at that time."

Identification of original manuscript and revisions

True believers (and skeptics) will find here virtually all of the original material written by Edwards and Magee, including their charts and observations on them. Changes and comments introduced by editors since the fifth edition have been rearranged, and, when appropriate, have been identified as a revision by that editor.

Maintaining this policy, where updates to the present technological context and market reality were necessary, the present editor has clearly identified them as his own work by beginning such annotations with "EN" for Editor's Note. Figure insertions are identified as "x.1, x.2."

Absolutely necessary revisions

Not too long ago my youngest son, Pancho, overheard a conversation in which I referred to a slide rule. "What's a slide rule, Dad?" he asked. Well, needless to say the world has, in general, moved on from the time of Edwards and Magee when instead of calculators we had slide rules. Where time has made the text useless, moot, or irrelevant, that problem has unobtrusively been corrected.

Where the passage of time has made the text obsolete, I have either footnoted the anachronism and/or provided a chapter-ending annotation, which are marked in the text with "EN." It is absolutely essential to read the annotations; failure to do so will leave the reader stranded in the 20th century.

In some cases, these annotations amount to new chapters—for example, trading directly in the averages was difficult in Magee's time. Nowadays, if there is not a proxy or option or index for some Index or Average or basket of stocks, there will be one in less than a New York minute (which, as everyone knows, has only 59 seconds). This new reality has resulted in major additions to this new edition, which are detailed in the Foreword. Major chapter additions necessary to deal with developments in technology and finance theory have been clearly identified as this editor's work by designating them as interpolations, viz., [Chapter 18](#) (with the exception of [Chapter 23](#), which I have surreptitiously inserted).

Absolutely necessary revisions that arose in the 30 minutes since this editorial note was written

In a number of instances, the book relayed information that, in those days of fixed commissions and monopolistic control by the existing exchanges, remained valid for long periods of time; for instance, brokerage commissions and trading costs. It is no longer possible to maintain such information in a printed book because of the rate of change in the financial industry. It must now be filed and updated in real time on the internet. Consequently, readers will be able to refer to the internet for this kind of ephemeral data. The general importance of the ephemera to the subject is always discussed.

About gender

I quote here from my foreword to the second edition of Magee's *General Semantics of Wall Street* (charmingly renamed according to the current fashions, *Winning the Mental Game on Wall Street*):

About Gender in Grammar

Ich bin ein feminist. How could any modern man, son of a beloved woman, husband of an adored woman, and father of a joyful and delightful daughter not be? I am also a traditionalist and purist in matters of usage, grammar, and style. So where does that leave me and my cogenerationists, enlightened literary (sigh) men (and women), with regards to the use of the masculine pronoun when used in the general sense to apply to the neuter situation?

In Dictionary of Modern American Usage, Garner notes: "English has a number of common-sex general words, such as person, anyone, everyone, and no one, but it has no common-sex singular personal pronouns. Instead we have he, she, and it. The traditional approach has been to use the masculine pronouns he and him to cover all persons, male and female alike The inadequacy of the English language in this respect becomes apparent in many sentences in which the generic masculine pronoun sits uneasily."

Inadequate or not, it is preferable to s/he/it and other bastardizations of the English language. (Is it not interesting that "bastard," in common usage, is never used of a woman, even when she is illegitimate?) As for the legitimacy of the usage of the masculine (actually neuter) pronoun in the generic, I prefer to lean on Fowler, who says, "There are three makeshifts: first, as anybody can see for himself or herself; second, as anybody can see for themselves; and third, as anybody can see for himself. No one who can help it chooses the first; it is correct, and is sometimes necessary, but it is so clumsy as to be ridiculous except when explicitness is urgent, and it usually sounds like a bit of pedantic humor. The second is the popular solution; it sets the literary man's (!) teeth on edge, and he exerts himself to give the same meaning in some entirely different way if he is not prepared to risk the third, which is here recommended. It involves the convention (statutory in the

interpretation of documents) that where the matter of sex is not conspicuous or important the masculine form shall be allowed to represent a person instead of a man, or say a man (homo) instead of a man (vir)."

Politically correct fanatics may rail, but so are my teeth set on edge; thus, I have generally preserved the authors' usage of the masculine for the generic case. This grammatical scourge will pass and be forgotten, and weak-willed myn (by which I intend to indicate men and women) who pander to grammatical terrorists will, in the future, be seen to be stuck with malformed style and sentences no womyn will buy. What would Jane Austen have done, after all?

About Gender in Investors

As long as we are on the subject of gender, we might as well discuss, unscientifically, gender in investors. Within my wide experience as a trading advisor, teacher, and counselor, it strikes me that the women investors I have known have possessed certain innate advantages over the men. I know there are women gamblers—I have seen some. But I have never seen a woman plunger (shooter, pyramider, pie-eyed gambler) in the markets, though I have known many men who fit this description. I have also noted among my students and clients that, as a group, women seem to have more patience than men. I refer specifically to the patience that a wise investor must have to allow the markets to do what they are going to do.

These are wholly personal observations. I have made no study of the question and can't speak to the entire class of women investors—and do not personally know Barbra Streisand (who I understand is a formidable investor, especially in IPOs). But just as I believe the world would be better off if more women ran countries and were police officers, I expect the world of finance will benefit from the steadily increasing number of women investors and managers.

A crucial question: sensitivity indexes and betas

Long before the investment community had formalized the beta measure—the coefficient measuring a stock's volatility relative to the market—Magee and Edwards were computing a Sensitivity Index, which, for all practical purposes, was the same thing. Readers interested in this aspect of their work may find references in *Resources* (EN10: now Appendix B), which will enable them to obtain betas to plug into the Composite Leverage formula with which Magee intended to determine risk levels. The old appendix on Sensitivity Indexes has been consigned to Appendix A (8th edition), along with the chapter on Composite Leverage, both originals of which have been emended to reflect current practices in finance theory and practice.

Betwixt and between, 1/8 of a dollar or 12.5 cents

As this edition went to press, the financial services industry was once again threatening to implement decimals in stock prices. Pricing in eighths has endured long past its time

because it was in the self-interest of the financial industry—it allowed brokers and market makers to enforce larger bid–ask spreads and fatten their profit margins. The importance for this book, and for traders, is what will happen as full decimalization occurs. Often in these pages, Magee will recommend placing a stop $1/8$ off the low or high, or placing progressive near stops in eighths. We do not yet know what the psychological interval will be in the new era; it may be 12.5 cents, or more psychologically, 10 cents, or for gaming purposes, 9 or 11 cents. This remains to be seen. As all the charts in this book are in the old notation, that usage has been preserved in this edition.

The editorial “I”

Readers will quickly note the “editorial we” of Edwards and Magee has been replaced by the first-person voice—or, the “editorial I” or perhaps the “professorial I.” Well, there were two authors in Edwards and Magee, and there is only one of me; my text is immediately noticeable as mine, and the reader may discriminate quickly. As for the use of “I” as an expression of ego, the reader is assured that after 40 years in the market, the editor has no ego left to promote. Perhaps the best way to put the editor’s sense of importance in perspective is to quote Dr. Johnson’s definition of lexicographer from his dictionary. Some people might have thought Johnson self-important in creating the first English dictionary; his definition of his trade put that right: “Lexicographer: a writer of dictionaries. A harmless drudge.” An editor is something like the same.

As this book goes to the printer, the publisher, recognizing the importance of the work done on this edition, will credit the editor as co-author of the eighth edition. John Magee would be pleased. We had a cordial master–student relationship, and nothing pleases a Zen master more than to transfer the dharma to a passionate student.

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In memoriam

This book is a memorial for John Magee, who died on June 17, 1987. John Magee was considered a seminal pioneer in technical analysis, and his research with co-author, Robert D. Edwards, clarified and expanded the ideas of Charles Dow, who laid the foundation for technical analysis in 1884 by developing the “Averages,” and Richard Schabacker, former editor of *Forbes* in the 1920s, who showed how the signals, which had been considered important when they appeared in the averages, were applicable to stocks themselves. The text, which summarized their findings in 1948, was, of course, *Technical Analysis of Stock Trends*, now considered the definitive work on pattern recognition analysis. Throughout his technical work, John Magee emphasized three principles: stock prices tend to move in trends; volume goes with the trend; and a trend, once established, tends to continue in force.

A large portion of *Technical Analysis of Stock Trends* is devoted to the patterns which tend to develop when a trend is being reversed: Head and Shoulders, Tops and Bottoms, “W” patterns, Triangles, Rectangles, etc.—common patterns to stock market technicians. Rounded Bottoms and Drooping Necklines are some of the more esoteric ones.

John urged investors to go with the trend, rather than trying to pick a bottom before it was completed, averaging down a declining market. Above all, and at all times, he refused to get involved in the game of forecasting where “the market” was headed, or where the Dow–Jones Industrial Averages would be on December 31st of the coming year. Rather, he preached care in individual stock selection regardless of which way the market “appeared” to be headed.

To the random walker, who once confronted John with the statement that there was no predictable behavior on Wall Street, John’s reply was classic. He said, “You fellows rely too heavily on your computers. The best computer ever designed is still the human brain. Theoreticians try to simulate stock market behavior, and, failing to do so with any degree of predictability, declare that a journey through the stock market is a random walk. Isn’t it equally possible that the programs simply aren’t sensitive enough or the computers strong enough to successfully simulate the thought process of the human brain?” Then John would walk over to his bin of charts, pull out a favorite, and show it to the random walker. There it was—spike up, heavy volume; consolidation, light volume; spike up again, heavy volume. A third time. A fourth time. A beautifully symmetrical chart, moving ahead in a well-defined trend channel, volume moving with price. “Do you really believe that these patterns are random?” John would ask, already knowing the answer.

We all have a favorite passage or quotation by our favorite author. My favorite quotation of John’s appears in the short booklet he wrote especially for subscribers to his Technical Stock Advisory Service: “When you enter the stock market, you are going into a competitive field in which your evaluations and opinions will be matched against some of the sharpest and toughest minds in the business. You are in a highly specialized industry in which there are many different sectors, all of which are under intense study by men whose economic

survival depends upon their best judgment. You will certainly be exposed to advice, suggestions, offers of help from all sides. Unless you are able to develop some market philosophy of your own, you will not be able to tell the good from the bad, the sound from the unsound."

I doubt if any man alive has helped more investors develop a sound philosophy of investing on Wall Street than John Magee.

Richard McDermott
President, John Magee, Inc.
September 1991

Preface to the seventh edition

More than 100 years ago, in Springfield, MA, there lived a man named Charles H. Dow. He was one of the editors of a great newspaper, the *Springfield Republican*. When he left Springfield, it was to establish another great newspaper, the *Wall Street Journal*.

Charles Dow also laid the foundation for a new approach to stock market problems.

In 1884, he made up an average of the daily closing prices of 11 important stocks, nine of which were rails, and recorded the fluctuations of this average.

He believed the judgment of the investing public, as reflected in the movements of stock prices, represented an evaluation of the future probabilities affecting the various industries. He saw in his average a tool for predicting business conditions many months ahead. This was true because those who bought and sold these stocks included people intimately acquainted with the industrial situation from every angle. Dow reasoned the price of a security, as determined by a free competitive market, represented the composite knowledge and appraisal of everyone interested in that security—financiers, officers of the company, investors, employees, customers—everyone, in fact, who might be buying or selling stock.

Dow felt this market evaluation was probably the shrewdest appraisal of conditions to come that could be contained, since it integrated all known facts, estimates, surmises, and the hopes and fears of all interested parties.

It was William Peter Hamilton who really put these ideas to work. In his book, *The Stock Market Barometer*, published in 1922, he laid the groundwork for the much-used and much-abused Dow Theory.

Unfortunately, a great many superficial students of the market never understood the original premise of the “barometer” and seized on the bare bones of the theory as a sort of magic touchstone to fame and easy fortune.

Others, discovering the “barometer” was not perfect, set about devising corrections. They tinkered with the rules of classic Dow Theory, trying to find the wonderful formula that would avoid its periodic disappointments and failures.

Of course, what they forgot was the Averages were only averages at best. There is nothing very wrong with the Dow Theory. What is wrong is the attempt to find a simple, universal formula—a set of measurements that will make a suit to fit every man, fat, thin, tall, or short.

During the 1920s and 1930s, Richard W. Schabacker reopened the subject of technical analysis in a somewhat new direction. Schabacker, who had been financial editor of *Forbes Magazine*, set out to find some new answers. He realized whatever significant action appeared in the average must derive from similar action in some of the stocks making up the average.

In his books, *Stock Market Theory and Practice*, *Technical Market Analysis*, and *Stock Market Profits*, Schabacker showed how the “signals” that had been considered important by Dow theorists when they appeared in the Averages were also significant and had the same meanings when they turned up in the charts of individual stocks.

Others, too, had noted these technical patterns, but it was Schabacker who collated, organized, and systematized the technical method. Not only that, he also discovered new technical indications in the charts of stocks; indications of a type that would ordinarily be absorbed or smothered in the averages, and, hence, not visible or useful to Dow theorists.

In the final years of his life, Richard Schabacker was joined by his brother-in-law, Robert D. Edwards, who completed Schabacker's last book and carried forward the research of technical analysis.

Edwards, in turn, was joined in this work in 1942 by John Magee. Magee, an alumnus of the Massachusetts Institute of Technology, was well oriented to the scientific and technical approach.

Edwards and Magee retraced the entire road, reexamining the Dow Theory and restudying the technical discoveries of Schabacker.

Basically, the original findings were still good; however, with additional history and experience, it was possible to correct some details of earlier studies. Also, a number of new applications and methods were brought to light. The entire process of technical evaluation became more scientific.

It became possible to state more precisely the premises of technical analysis: that the market represents a most democratic and representative criterion of stock values; that the action of a stock in a free, competitive market reflects all that is known, believed, surmised, hoped, or feared about that stock; and, therefore, that it synthesizes the attitudes and opinions of all. That the price of a stock is the result of buying and selling forces and represents the "true value" at any given moment. That a Major Trend must be presumed to continue in effect until clear evidence of Reversal is shown. And, finally, that it is possible to form opinions having a reasonably high probability of confirmation from the market action of a stock as shown in daily, weekly, or monthly charts, or from other technical studies derived from the market activity of the security.

It is important to point out that the ultimate value of a security to the investor or trader is what he or she ultimately receives from it. That is to say, the price the investor gets when it is sold, or the market price obtainable for it at any particular time, adjusted for dividends or capital distribution in either case. If, for example, he or she has bought a stock at \$25 a share, and it has paid \$5 in dividends and is now bid at \$35, he or she has realized an accrued benefit of \$5 plus \$10, or \$15 in all. It is the combination of dividends and appreciation of capital that constitutes the total gain.

It seems futile to try to correlate or compare the market value of a stock with the "book value" or with the "value" figured on a basis of capitalized earnings or dividends, projected growth, etc. There are too many other factors that may also affect the value, and some of these cannot easily be expressed in simple ratios. For example, a struggle for control of a corporation can as surely increase the value of its securities in the market as a growth of earnings. Again, a company may lose money for years and pay no dividends, yet still be an excellent investment on the basis of its development of potential resources as perceived by those who are buying and selling its stock. The market is not evaluating last year's accomplishments as such; it is weighing the prospects for the year to come.

Then, too, in a time of inflation, a majority of stocks may advance sharply in price. This may reflect a depreciation in the purchasing power of dollars more than improvement in business conditions—but it is important, nonetheless, in such a case to be "out of dollars" and "into" equities.

As a result of their research from 1942 to 1948, Edwards and Magee developed new technical methods. They put these methods to practical use in actual market operation.

Eventually, in 1948, these findings were published in their definitive book, *Technical Analysis of Stock Trends*.

This book, now in its seventh edition, has become the accepted authority in this field. It has been used as a textbook by various schools and colleges and is the basic tool of many investors and traders.

In 1951, Edwards retired from his work as a stock analyst and John Magee continued the research, at first, independently, and then from January 1953 to March 1956 as Chief Technical Analyst with an investment counseling firm.

Meanwhile, beginning in 1950, Magee started on a new road, which, as it turned out, was destined to open up virgin fields of technical market research.

Using the methods of Dow, Hamilton, Schabacker, and Edwards as a base, he initiated a series of studies intended to discover new technical devices. These investigations were long and laborious, and, often, they were fruitless. One study required four months of work, involved hundreds of sheets of tabulations, many thousands of computations, and proved nothing.

But from this type of work, eventually in late 1951, there began to emerge some important new and useful concepts—new bricks to build into the structure of the technical method.

The new devices are not revolutionary. They do not vitiate the basic technical approach. Rather, they are evolutionary and add something to the valuable kit of tools already at hand. The new studies often make it possible to interpret and predict difficult situations sooner and more dependably than any other method previously used.

Mr. Magee has designated these newest technical devices the Delta Studies. They are basically an extension and refinement of the technical method. There is no magic in the Delta Studies. They do not provide infallible formulas for sure profits at all times in every transaction, but they have proved eminently successful over a period of years in practical use in actual market operations, as an auxiliary to the methods outlined in the book, *Technical Analysis of Stock Trends*.

Through his technical work, John Magee emphasized these three principles:

1. Stock prices tend to move in trends.
2. Volume goes with the trends.
3. A trend, once established, tends to continue in force.

A large portion of the book, *Technical Analysis of Stock Trends*, is devoted to the patterns that tend to develop when a trend is being reversed. Head and Shoulders, Tops and Bottoms, “W” Patterns, Triangles, Rectangles, etc., are common patterns to stock market technicians. Rounded Bottoms and Drooping Necklines are some of the more esoteric ones.

Magee urged investors to go with the trend, rather than trying to pick a Bottom before it was completed or averaging down in a declining stock. Above all, and at all times, he refused to get involved in the game of forecasting where “the market” was headed, or where the Dow Jones Industrial Average® would be on December 31st of the coming year. Rather, he preached care in individual stock selection regardless of which way the market “appeared” headed. Finally, his service recommended short positions as regularly as it did long positions, based simply on what the charts said.

Richard McDermott

Editor and Reviser

Technical Analysis of Stock Trends, Seventh Edition

January 1997



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Preface to the fifth edition

During the 16 printings of the fourth edition of *Technical Analysis of Stock Trends*, very few changes have been made in the original text, mainly because the lucid presentation of market action by the late Robert D. Edwards covered so thoroughly the basic and typical market action of common stocks. There has seemed no reason, for example, to discard a chart picture illustrating some important technical phenomenon merely because it occurred several or many years ago.

Instead, over the various printings of the book, pages have been added showing similar examples, or in some cases entirely new types of market action taken from recent history; but these demonstrate mainly that the inherent nature of a competitive market does not change very much over the years, and that “the same old patterns” of human behavior continue to produce much the same types of market trends and fluctuations.

The principal change in this fifth edition, and it is a spectacular improvement, is that practically all of the chart examples drawn to the TEKNIPLAT™ scale have been redrawn and new plates of these have been substituted. In the course of this work, several minor errors of scaling, titling, etc., previously undiscovered, came to light and have been corrected.

The difficult work of revision was initiated in our charting room by two ambitious teenagers, Anne E. Mahoney and Joseph J. Spezeski, who took on the entire job of preparing the finished drawings and making necessary corrections. This enormous project was undertaken and carried through by these two young people spontaneously. In order to free them entirely from other distractions, their regular charting work was taken over for a period of months by the rest of the chartroom staff, so that a great deal of credit is due to the fine efforts of the entire chartroom group.

John Magee
December 3, 1966



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Preface to the fourth edition

In the several years since publication of the first edition of this work, “the stock market goes right on repeating the same old movements in much the same old routine.” Nearly all of the technical phenomena outlined in the first edition have appeared many times since then, and we see no reason to expect these habits of stocks will change materially in the years ahead, barring revolutionary changes in the economy, such as the abolishment of the free market entirely.

Since the basic nature of the market has not changed appreciably, it has been unnecessary to make sweeping alterations in the text of “Part One: Technical Theory.” The previous edition has been very carefully restudied, and revisions have been made where they were called for to bring the material up to date. In “Part Two: Trading Tactics,” more extensive changes were needed, due to the more specific nature of the material and some differences in the present margin requirements, trading rules, etc. Also, there have been some improvements in the application of technical methods at the tactical level, and these have been incorporated in this section.

Somewhat less emphasis has been put on the use of stop-loss orders, since their need is not so great in the case of the experienced trader as it might be with the novice. The principle of always following the Major Trend has been modified to achieve better protection of capital through balance and diversification. In line with avoiding “all-out” situations, with their consequent dangers, the idea of using an Evaluative Index has been introduced, and this concept has modified somewhat the tactics of following the Major Trend. It also has a bearing on the Composite Leverage or determination of total risk.

Type for the entire book has been reset in this edition. The illustrative charts originally used have been, in the main, retained, since they demonstrate the various points very well, but a new chapter includes a number of additional charts taken from the market history of recent years, showing how the same phenomena continue to appear again and again.

The appendix (Appendix C, 5th edition) on the Sensitivity Indexes has been completely recomputed and extended to cover a broad list of the more important issues. The arduous labor of determining these index figures was undertaken by Frank J. Curto and Marcella P. Curto. Material help in proofreading and revision for this edition was given by Beverly Magee and Elinor T. Magee.

John Magee
January 1, 1957



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Preface to the second edition

It is, needless to say, gratifying to the authors of this treatise to report that not only has a large first edition been exhausted (although it was originally assumed it would suffice for many years), but also, the demand for copies has been increasing at a rather astonishing pace during the past six months without any “promotion” except word-of-mouth recommendation from one investor to another.

In preparing this new edition, a careful perusal of everything that was written in the previous printing, checked by the market events of the past 24 months and compared with all of the additional chart data accumulated during that period, resulted in the not unexpected, but nevertheless mildly surprising conclusion that nothing of real consequence needed to be changed or amplified. Hence, only minor revisions of an editorial nature have been made.

It would have been interesting to augment our already copious illustrations with a number of charts from current months of market action, but costs of engraving and printing have risen to such a distressingly high level that any additions of that sort would, it was found, be prohibitively expensive. Aside from their novelty, they would add nothing to the book; they would only be substituted for other charts of precisely the same nature and significance, and fully as pertinent to present-day conditions.

The stock market, as I wrote in the original Foreword, “goes right on repeating the same old movements in much the same old routine. The importance of a knowledge of these phenomena to the trader and investor has been in no whit diminished.” We see the same forecasting patterns developing on the charts today that we have seen over and over again for the past 20 years. Neither the mechanics nor the “human element” of the stock market has changed, and there is no reason to think they will.

Robert D. Edwards

May 1, 1951



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Foreword

This book has been written for the layman rather than for the Wall Street professional. But, it assumes the reader is already possessed of at least an elementary knowledge of the nature of stocks and bonds, and he has had some dealings with a broker and some familiarity with the financial pages of his newspapers. Hence, no attempt is made herein to define common stock market terms and procedures. Every effort, however, has been exerted to explain, in full, the theories and the terminology of our specific subject, technical market analysis.

Part One is based, in large part, on the pioneer researches and writings of the late Richard W. Schabacker. Students of his *Technical Analysis and Stock Market Profits* (the latest revision of which is now out of print was made in 1937 by the present writer and Albert L. Kimball) will find in the pages of this section much that is familiar and, except for the illustrations, only a little that is really novel. It has been a matter of surprise, in fact, to the authors and other students of market technics that all the new controls and regulations of the past several years, the new taxes which have placed a heavy handicap on successful investors, the greatly augmented and improved facilities for acquiring dependable information on securities, even the quite radical changes in certain portions of our basic economy, have not much altered the “pattern” of the stock market.

Certain of the evidences of pool manipulation that used to appear on the charts are now seldom seen. A few of the price formations that formerly were quite common, now appear rarely or may have lost much of their practical utility for the trader; they have been omitted from this text. Others have altered their habits slightly, or their consequences to a degree (but not their fundamental nature), which has, of course, been noted herein. The distressing thinness of the market at times—one of the undoubted effects of regulation—has resulted in a few more “false moves,” more spells of uninteresting (and unprofitable) inactivity. But, in the main, the market goes right on repeating the same old movements in much the same old routine. The importance of a knowledge of these phenomena to the trader and investor has been in no whit diminished.

Part Two, which has to do with the practical application of these market patterns and phenomena, with the tactics of trading, is all new. For more than 15 years (his total market experience extends back nearly 30 years), John Magee has invested and traded exclusively via the technical theory, kept thousands of charts, made hundreds of actual trades, tested all sorts of applications, audited and analyzed methods, tactics, and results from every conceivable angle, depended on his profits for his living. His contribution is that of one who has tried and knows.

It may well be added here—and will be often repeated in the following pages—that the technical guides to trading in stocks are by no means infallible. The more experience one gains in their use, the more alive one becomes to their pitfalls and their failures. There is no such thing as a sure-fire method of “beating the market”; the authors have no hesitancy in saying that there never will be. Nevertheless, a knowledge and judicious application of the

principles of technical analysis does pay dividends—is more profitable (and far safer) for the average investor than any other of the presently recognized and established approaches to the problems of buying and selling securities.

Robert D. Edwards

July 1948

part one

Technical theory



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chapter one

The technical approach to trading and investing

Few human activities have been so exhaustively studied during the past century, from so many angles and by so many different sorts of people, as the buying and selling of corporate securities. The rewards the stock market holds out to those who read it right are enormous; the penalties it exacts from careless, dozing, or “unlucky” investors are calamitous. No wonder it has attracted some of the world’s most astute accountants, analysts, and researchers, along with a motley crew of eccentrics, mystics, “hunch players,” and a multitude of just ordinary hopeful citizens.

Able brains have sought, and continue constantly to seek, for safe and sure methods of appraising the state and trend of the market, as well as discovering the right stock to buy and the right time to buy it. This intensive research has not been fruitless—far from it. There are a great many successful investors and speculators (using the word in its true sense, which is without opprobrium) who, by one road or another, have acquired the necessary insight into the forces with which they deal and the judgment, the forethought, and the all-important self-discipline to deal with them profitably.

In the course of years of stock market study, two quite distinct schools of thought have arisen, providing two radically different methods of arriving at the answers to the trader’s problem of *what* and *when*. In the parlance of “the Street,” one of these is commonly referred to as the *fundamental* or statistical, and the other as the *technical*. (In recent years a third approach, the *cyclical*, has made rapid progress, and although still beset by a “lunatic fringe,” it promises to contribute a great deal to our understanding of economic trends.)

The stock market fundamentalist depends on statistics. He examines the auditors’ reports, the profit-and-loss statements, the quarterly balance sheets, the dividend records, and the policies of the companies whose shares he has under observation. He analyzes sales data, managerial ability, plant capacity, and the competition. He turns to bank and treasury reports, production indexes, price statistics, and crop forecasts, to gauge the state of business in general, and reads the daily news carefully to arrive at an estimate of future business conditions. Taking all these into account, he evaluates his stock; if it is selling currently below his appraisal, he regards it as a buy. (EN9: *And, no surprise, the buyer’s name is Warren Buffet, and he buys the company, not the stock, for although this is an excellent way to buy companies, it is not a very good way to buy stocks.*) EN: Read Robert Prechter’s summation of the fundamental methodology as an amusing endnote at the end of this chapter.

As a matter of fact, aside from the greenest of newcomers when they first tackle the investment problem, and to whom, in their inexperience, any other point of view is not only irrational but incomprehensible, your pure fundamentalist is a rare bird. Even those market authorities who pretend to scorn charts and “chartists” utterly are not oblivious to the “action” chronicled by the ticker tape, and they do not conceal their respect for the Dow Theory, which, whether they realize it or not, is, in its very essence, purely technical.

Definition of technical analysis

The term “technical,” in its application to the stock market, has come to have a special meaning, quite different from its ordinary dictionary definition. It refers to *the study of the action of the market itself* as opposed to the study of the goods in which the market deals. *Technical Analysis* is the science of recording, usually in graphic form, the actual history of trading (price changes, volume of transactions, etc.) in a certain stock or in “the Averages” and then deducing from that pictured history the probable future trend. *EN: With the advent of the computer, many schools of technical analysis have arisen. Number-driven technical analysis (e.g., moving average studies, oscillators, etc.) attempts to completely objectify the analysis of the markets. The work of Edwards and Magee is the embodiment and definition of “classical technical analysis.”*

The technical student argues thus: it is futile to assign an intrinsic value to a stock certificate. One share of U.S. Steel, for example, was worth \$261 in the early fall of 1929, but you could buy it for only \$22 in June 1932. By March 1937, it was selling for \$126 and just one year later it was selling for \$38. In May 1946, it had climbed back up to \$97, and 10 months later, in 1947, had dropped below \$70, although the company’s earnings on this last date were reputed to be nearing an all-time high and interest rates in general were still near an all-time low. The book value of this share of U.S. Steel, according to the corporation’s balance sheet, was about \$204 in 1929 (end of the year), \$187 in 1932, \$151 in 1937, \$117 in 1938, and \$142 in 1946. This sort of wide divergence between presumed value and actual price is not the exception—it is the rule. It is going on all the time. The fact is the real value of a share of U.S. Steel common is determined at any given time solely, definitely, and inexorably by supply and demand, which are accurately reflected in the transactions consummated on the floor of the New York Stock Exchange (see [Figure 1.1](#)).

Of course, the statistics fundamentalists study play a part in the supply–demand equation—that is freely admitted. But many other factors are affecting it as well. The market price reflects not only the differing value opinions of many orthodox security appraisers, but also all the hopes and fears and guesses and moods, rational and irrational, of hundreds of potential buyers and sellers, as well as their needs and their resources—in total, factors that defy analysis and for which no statistics are obtainable, but that nevertheless are synthesized, weighed, and finally expressed in the one precise figure at which a buyer and a seller get together and make a deal (through their agents, their respective stock brokers). This is the only figure that counts.

Moreover, the technician claims, with complete justification, that the bulk of the statistics the fundamentalists study are past history, already out of date and sterile because the market is not interested in the past or even in the present. It is constantly looking ahead, attempting to discount future developments, weighing and balancing all the estimates and guesses of thousands of investors who look into the future from different points of view and through glasses of many different hues. In brief, the going price, as established by the market itself, comprehends all the fundamental information the statistical analyst can hope to learn (plus some that is perhaps secret from him or known only to a few insiders) and much else besides of equal or even greater importance.

All of which, admitting its truth, would be of little significance were it not for the fact, which no one of experience doubts, that prices move in trends and trends tend to continue until something happens to change the supply–demand balance. Such changes are usually detectable in the action of the market. Certain patterns or formations, levels or areas, appear on the charts that have a meaning and that can be interpreted in terms of probable future

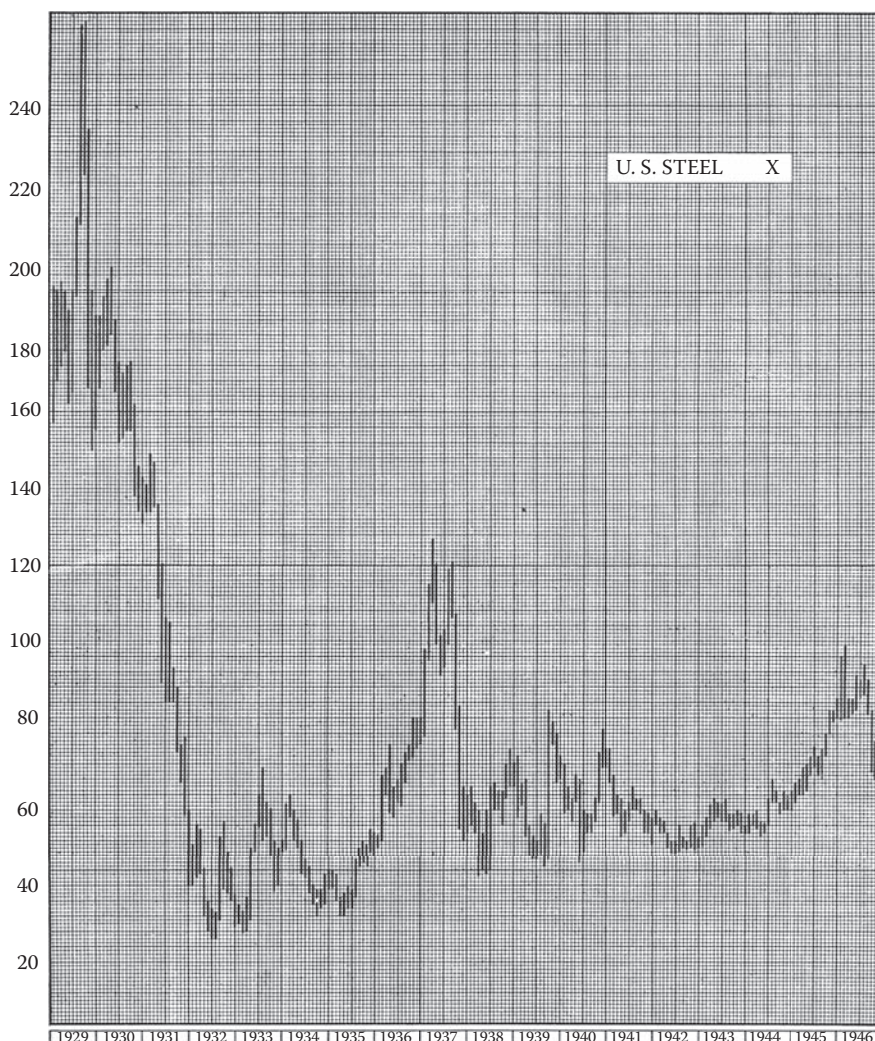


Figure 1.1 Monthly price ranges of U.S. Steel common from January 1929 to December 1946. Compare the great swings in the market price for this stock—from 1929 (extreme high, 261 3/4) to 1932 (extreme low, 21 1/4), from 1932 to 1937, from 1937 to 1938, from 1942 to 1946—with its book values for those years as cited on the previous page.

trend development. They are not infallible, it must be noted, but the odds are definitely in their favor. Time after time, as experience has amply proved, they are far more prescient than the best informed and most shrewd of statisticians.

The technical analyst may go even further in his claims. He may offer to interpret the chart of a stock whose name he does not know, so long as the record of trading is accurate and covers a long enough term to enable him to study its market background and habits. He may suggest he could trade with profit in a stock knowing only its ticker symbol, completely ignorant of the company, the industry, what it manufactures or sells, or how it is capitalized. Needless to say, such practice is not recommended, but if your market technician is really experienced at his business, he could, in theory, do exactly what he claims.

Should the reader, at this point, find the technical approach to trading or investing, as explained in the foregoing, completely abhorrent, perhaps he had better close the book now, for it is primarily the technical approach, the science of technical analysis, with which the remainder of the book deals.

EN: The Elliott Wave Theory: perspective and comments from a Magee investment letter of the 80s. This week, we had the pleasure of attending the December meeting of the Market Technicians Association of New York (MTANY).

Long-term subscribers will remember the MTANY as the organization that honored John Magee with its Man of the Year award in 1978. The speaker was Robert Prechter, publisher of "The Elliott Wave Theorist," an investment advisory that bases its forecasts on interpretations of R. N. Elliott's work on the stock market.

Of primary interest to subscribers are Prechter's comments on technical analysis itself. The Elliott Wave Theory, it must be remembered, is really no more than a "catalog" of stock market price movements, laid one on top of the other, so to speak, until a grand, underlying, and enduring pattern is observed; in short, pure technical analysis. Among Prechter's definitions and observations regarding fundamental analysis are the following:

1. First, let's define "technical" versus "fundamental" data ... technical data is that which is generated by the action of the market under study.
2. The main problem with fundamental analysis is its indicators are removed from the market itself. The analyst assumes causality between external events and market movements, a concept which is almost certainly false. But, just as important (and less recognized), is that fundamental analysis almost always requires a forecast of the fundamental data itself before conclusions about the market are drawn. The analyst is then forced to take a second step in coming to a conclusion about how those forecasted events will affect the markets! Technicians only have one step to take, which gives them an edge right off the bat. Their main advantage is they don't have to forecast their indicators.
3. What's worse, even the fundamentalists' second step is probably a process built on quicksand. ... The most common application of fundamental analysis is estimating companies' earnings for both the current year and next year and recommending stocks on that basis. ... And the record on that basis alone is very poor, as Barron's pointed out in a June 4 article, which showed that earnings estimates averaged 18% error in the 30 Dow Jones Industrial Average (DJIA) stocks for any year already completed and 54% error for the year ahead. The weakest link, however, is the assumption that correct earnings estimates are a basis for choosing stock market winners. According to a table in the same Barron's article, a purchase of the 10 DJIA stocks with the best earnings estimates would have produced a 10-year cumulative gain of 40.5%, while choosing the 10 DJIA with the worst earnings estimates would have produced a whopping 142.5% gain.

We enjoyed Prechter's polished exposition of a technical approach, which is different from our own. As for his observations about fundamental analysis, we simply couldn't agree more.

chapter two

Charts

Charts are the working tools of the technical analyst. They have been developed in a multitude of forms and styles to represent graphically almost anything that takes place in the market as well as to plot an “index” derived therefrom. They may be monthly charts on which an entire month’s trading record is condensed into a single entry, or they may be weekly, daily, hourly, transaction, “point-and-figure,” and candlestick charts. They may be constructed on arithmetic, logarithmic, or square-root scale, or they may be projected as “oscillators.” They may delineate moving averages, proportion of trading volume to price movement, average price of most active issues, odd-lot transactions, the short interest, and an infinitude of other relations, ratios, and indexes—all technical in the sense that they are derived, directly or indirectly, from what actually has been transacted on the exchanges.

Fortunately, we shall not need to concern ourselves with most of these charts; they are of interest only to the full-time economic analyst. Many of these charts have derived from a completely futile (so far, at least) endeavor to discover a “mechanical” index or combination of indexes that will always, automatically, without ever failing or going wrong, give warning of a change in trend; in our experience, such charts are often confusing and sometimes downright deceptive at a most critical juncture. This book, however, is designed for the layman, the professional who cannot spend all of his hours on his investing or trading operations, but to whom these operations are, nevertheless, of sufficient importance or interest to warrant his devoting at least a few minutes a day to their study and management. *(EN9: In retrospect, this is an underestimation of the importance of the work. In the 21st century, the best professionals are acutely aware of the importance of trend analysis and use this work as their textbook.)* The theories and methods outlined herein will require only the simplest form of stock chart—a record of the price range (open, high/low and close) and volume of shares traded each day. These daily graphs will be supplemented, for certain purposes that will be discussed later in this text, by weekly or monthly charts, which for most stocks can be easily generated by almost all commercially available investment software and websites.

Nearly all the illustrations throughout the following chapters are examples of such daily charts. They are easy to make and maintain manually, requiring only a supply of graph or cross-section paper (almost any kind can serve), a daily newspaper that gives full and accurate reports on stock exchange dealings, a sharp pencil, and a few minutes of time. *EN: Alternatively, numerous data services are available for use with computer software packages, not to mention internet sites (which are mentioned in Appendix B, Resources). The use of this technology eliminates the burden of manual chart keeping. If there is a drawback to this technology, it might be in the loss of the “feel” the investor gets through manual charting.*

It is customary in preparing ordinary daily stock charts to let the horizontal axis represent time, with the vertical cross-lines (or as some prefer, the spaces between them) from left to right, thus standing for successive days. The vertical scale is used for prices, with each horizontal cross-line then representing a specific price level. Space is usually provided at the bottom of the sheet to plot volume, that is, the number of shares that change hands each day. The newspapers publishing complete stock market reports give the day’s turnover or volume (exclusive of odd-lot transactions that for our present purpose may

be disregarded), the highest and lowest price at which each stock sold during the day, the closing price (which is the price at which the last sale effected during the day was made), and usually the opening or first sale price. On our charts, the daily price range is plotted by drawing a vertical line connecting the points representing the high and the low. Then a short horizontal "tick" is added, either crossing the vertical range line or extending out to the right from it, at the level of the closing price. Sometimes all transactions in a stock during a day take place at one and the same price; the high, low, and close are thus all on level and the only mark on our chart will be the horizontal dash representing the closing figure. Volume is depicted by drawing a vertical line up from the baseline of the chart.

The opening price need not be recorded. (*EN10: Candlestick charts require this piece of data.*) Experience has shown that it seldom, if ever, has any significance in estimating future developments, which is all that ordinarily should interest us. The closing price is important, however. It is, in fact, the only price that many casual readers of the financial pages ever look at. It represents the final evaluation of the stock made by the market during the day. The closing price may be registered in the first hour of trading, provided no other sales are subsequently affected, but, it nevertheless becomes the figure upon which a majority of prospective traders base their plans for the following day. Hence, its technical significance is evident and will appear in various contexts in later chapters.

Different types of scales

Many specific suggestions as to the details of charting are deferred for discussion in Section II of this book, but there is one chart feature that may well be considered here. Until recent years, nearly all stock price charts were kept on the common form of graph paper ruled to what is known as plain or arithmetic scale. But more and more chartists have now come to use what is known as semilogarithmic paper, or sometimes as ratio or percentage paper. Our experience indicates that the semilogarithmic scale has definite advantages in this work, and most of the charts reproduced in this book employ this scale. The two types of scales may be distinguished at a glance: on arithmetic paper, equal distances on the vertical scale (i.e., between horizontal lines) represent equal amounts in dollars, whereas on the semilogarithmic paper, they represent equal percentage changes. Thus, on arithmetic paper, the distance between 10 and 20 on the vertical scale is exactly the same as that from 20 to 30 and from 30 to 40. On the semilogarithmic scale the difference from 10 to 20, representing an increase of 100%, is the same as that from 20 to 40 or from 40 to 80, in each case representing another 100% increase.

Percentage relations, it goes without saying, are important in trading in securities. The semilogarithmic scale permits direct comparison of high- and low-priced stocks and makes it easier to choose the one offering the greater (percentage) profit on the funds to be invested. It facilitates the placing of stop-loss orders. Area patterns appear much the same on either type of paper, but certain trendlines develop more advantageously on the ratio scale. Almost anyone can quickly become accustomed to making entries on semilogarithmic paper. (We recommend its use.) Its advantages, however, are not so great as to require one to change—one who, because of long familiarity and practice, prefers an arithmetic sheet. Such percentage calculations, as may seem to be required, can be made on another sheet or in the head, and the results then can be entered on the arithmetic chart, if a record is desired.

Several firms specializing in the manufacture of graph paper and other engineers' and architects' supplies now offer sheets specifically designed for stock charting, on which heavier lines to define the business week mark each sixth day on the time scale, and the

price scale is subdivided into eighths to represent the standard fractions of the dollar in which stocks are traded on all U.S. exchanges. (EN9: *Eighths went the way of the New Haven and now decimals reign.*) These sheets are available in various sizes and with either arithmetic or logarithmic price and volume scales. EN: *This paper is only of interest to the manual chartist, as modern software, as detailed in Appendix B, Resources, enables the computer chartist to easily switch between price scales and methods of charting. References to such paper are also found there.*

On weekly charts, each vertical line represents a week's worth of trading. The price range for the week is plotted thereon and usually the total volume, but the closing price may be omitted. The range extends from the highest price at which the stock sold on any day during the week to the lowest price at which it sold on any day; these two extremes might, and sometimes do, occur on the same day, but the weekly chart makes no distinction as to day. Monthly charts are prepared in the same way but do not, as a rule, record volume. These two charts—often referred to as long-term or major charts—are used chiefly for determining important support and resistance levels and for marking long-term trends. Weekly charts—if the reader prefers to keep his own—can be posted easily from the Sunday morning editions of those daily newspapers (e.g., the *New York Times* or *Barron's Business and Financial Weekly*) that publish a summary of the previous week's transactions.

In concluding this chapter on the construction of the charts that we shall study in succeeding chapters, it can well be said that there is no special virtue, certainly no magic, in the chart itself. It is simply a pictorial record of the trading history of the stock or stocks in which we may be interested. To the person possessed of a photographic memory, no chart work is necessary; his mind records all the necessary data—he carries his charts in his head. Many of the expert “tape-readers” who have no use for charts are gifted with that rare memory talent that renders reference to graphic records unnecessary. But most of us are not so blessed; to use the chart is necessary and useful because it lends itself conveniently to the type of analysis that indicates future probabilities.

There is a saying on Wall Street to the effect that “there is nothing wrong with charts—the trouble is with the chartists,” which is simply another way of expressing the truth that it is not the chart but its interpretation that is important. Chart analysis is neither easy nor foolproof. Yet, it is not at all uncommon for some casual investor who has no idea whatever of market technics to pick up a chart by chance and see in it something he had not hitherto suspected, something perhaps that saves him from making an unfavorable commitment.

If you have never used stock charts, and have never paid much attention to them, you may be surprised at some of the significant things you will detect as soon as you begin to study them seriously.

EN9: *Surprise and astonishment are the words used to describe the reactions of even professionals when they are fully exposed to a coherent presentation of the methods of Edwards and Magee. I have often commented that no understanding of other (number driven statistical) methods of technical analysis is possible without a firm grasp of the concepts and principles of this book.*

Some other comments are worth noting relevant to Edwards' discussion. For manual charting, semilog remains the superior scale. Given the ease of changing scale and time frames on internet sites (e.g., *prophet.net*, *thinkorswim.com*, *tdameritrade.com*, and *stockcharts.com*) and in the standalone software, one may switch from a close-up of a month to a long-range perspective of years. In this process, it is important to maintain perspective. Multiyear log charts of large ranges lose graphic importance at the top as chart intervals shrink. This distortion must be countered by breaking the time frame into smaller increments. Thus, instead of five years of a chart that spans a range of 10–200, we look at five charts of one year each as well as the five-year chart.

In the modern era, a new graphic representation has gained enormous popularity—candlestick charting. In this method, color is added to the chart by coloring the body of the candlestick—white

for rising prices, black for falling prices (or colors of your choice). Thus, the direction of the trend is dramatized. Also, candlestick patterns are said to be of value in recognizing trend reversals and other trend states.

A host of other charting methods exists: Three Line Break, Renko, Kagi... These may be researched in Nison's book, Beyond Candlesticks. I will not treat these in this book, but I do include them in an appendix on examination of Point and Figure charting.

chapter three

The Dow Theory

The Dow Theory is the granddaddy of all technical market studies. Although it is frequently criticized for being “too late” and occasionally derided (particularly in the early stages of a Bear Market) by those who rebel against its verdicts, it is known by name to nearly everyone who has had any association with the stock market, and it is respected by most. Many who heed it in greater or lesser degrees in determining their investment policies never realize that it is purely and simply “technical.” It is built upon and concerned with nothing but the action of the stock market (as expressed in certain averages), deriving nothing from the business statistics on which the fundamentalists depend.

There is much in the writings of its original promulgator, Charles H. Dow, to suggest he did not think of his theory as a device for forecasting the stock market, or even as a guide for investors, but rather as a barometer of general business trends. Dow founded the Dow–Jones Financial News Service and is credited with the invention of stock market averages. He outlined the basic principles of the theory, which was later named after him, in editorials he wrote for the *Wall Street Journal*. Upon his death in 1902, his successor, William P. Hamilton, as editor of the *Journal*, took up Dow’s principles and, in the course of 27 years of writing on the stock market, organized and formulated them into the Dow Theory as we know it today.

Before we proceed to an explanation of the theory, it will be necessary to examine the stock *averages* that it employs. Long before the time of Dow, the fact was familiar to bankers and businessmen that the securities of most established companies tended to go up or down in price together. Exceptions—stocks that moved against the general financial tide—were rare, nor did they as a rule persevere in that contrary course for more than a few days or weeks at a time. It is true that when a boom was on, the prices of some issues rose faster and farther than others, and when the trend was toward depression, some stocks declined rapidly whereas others would put up considerable resistance to the forces that were dragging down the market. The fact remained, however, that most securities tended to swing together. (They still do and always will.)

This fact, as we have said, has long been commonly known and accepted (so completely taken for granted that its importance is usually overlooked), for it is important—tremendously important—from many angles in addition to those that come within the province of this volume. One of the best reasons for a student of market technics to start with the Dow Theory is because that theory stresses the *general market trend*.

Charles Dow is believed to have been the first to make a thorough effort to express the general trend (or, more correctly, level) of the securities market in terms of the *average price* of a selected few representative stocks. As finally set up in January of 1897, in the form that has continued to date and used by Dow in his studies of market trends, there were two Dow–Jones Averages. One was composed solely of the stocks of 20 railroad companies, for the railroads were the dominant corporate enterprises of his day. The other, called the Industrial Average, represented all other types of businesses and was made up, at first, of only 12 issues. This number was increased to 20 in 1916 and to 30 on October 1, 1928.

The Dow Averages

The stocks included in these two Averages have been changed from time to time to keep the lists up to date and as nearly representative as possible of their respective groups. Only General Electric, of the present 30 industrial stocks, was included in the original Industrial Average, and that was dropped at one time (in 1898) and subsequently reinserted. In 1929, all stocks of public utility companies were dropped from the Industrial Average and a new Utility Average of 20 issues was set up; in 1938, its number was reduced to 15. The 20 rail, 30 industrial, and 15 utility stocks are now averaged together to make what is known as the Dow–Jones Stock Composite. The history of these Averages, the various adjustments that have been made in them and their method of computation is an interesting story in itself, which the reader may want to look up elsewhere. *EN: See Appendix B, Resources, for references. Note also there is now a proliferation of Dow–Jones Averages.* For our present purpose, it remains only to add that the Dow Theory pays no attention to the Utility or Composite Averages; its interpretations are based on the Rail and Industrial Averages only. *EN: The Rails are now known as Transportations.*

In recent years, the values of the Dow–Jones Averages have been computed for the end of each hour of trading as well as the end of the day. *EN: Now computed in real time and available over the internet, these hourly figures are published in the Wall Street Journal as well as on all market tickers. In fact, presently, the Averages are computed in real time, a necessity for options and futures trading that takes place on them.* The *Wall Street Journal* also prints in each issue a summary of the important highs and lows of each average by date for the preceding two or three years. Their daily closing prices are reported in many other metropolitan daily newspapers.

Basic tenets

To get back to the Dow Theory, here are its basic tenets:

1. **The Averages discount everything (except “acts of God”):** Since they reflect the combined market activities of thousands of investors, including those possessed of the greatest foresight and the best information on trends and events, the Averages in their day-to-day fluctuations discount everything known, everything foreseeable, and every condition that can affect the supply of or the demand for corporate securities. Even unpredictable natural calamities, when they happen, are quickly appraised and their possible effects discounted.
2. **The Three Trends:** The “market,” meaning the price of stocks in general, swings in trends, of which the most important are its *Major* or *Primary Trends*. These are the extensive up or down movements that usually last for a year or more and result in general appreciation or depreciation in value of more than 20%. Movements in the direction of the Primary Trend are interrupted at intervals by *Secondary Swings* in the opposite direction—reactions or corrections that occur when the Primary Move has temporarily “gotten ahead of itself.” (Both Secondary and the intervening segments of the Primary Trend are frequently lumped together as *Intermediate Movements*—a term we shall find useful in subsequent discussions.) Finally, the Secondary Trends are composed of *Minor Trends* or day-to-day fluctuations that are unimportant to Dow Theory.
3. **The Primary Trends:** These, as aforesaid, are the broad, overall, up and down movements that usually (but not invariably) last for more than a year and may run for several years. So long as each successive rally (price advance) reaches a higher level

than the one before it, and each Secondary Reaction stops (i.e., the price trend reverses from down to up) at a higher level than the previous reaction, the Primary Trend is *up*. This is called a *Bull Market*. Conversely, when each Intermediate Decline carries prices to successively lower levels and each intervening rally fails to bring them back up to the top level of the preceding rally, the Primary Trend is *down*. This is called a *Bear Market*. (The terms *Bull* and *Bear* are frequently used loosely with reference, respectively, to any sort of up or down movements, but we shall use them in this book only in connection with the Major or Primary Movements of the market in the Dow sense.) Ordinarily—theoretically, at least—the Primary Trend is the only one of the three trends with which the true long-term investor is concerned. His aim is to buy stocks as early as possible in a Bull Market—just as soon as he can be sure that one has started—and then hold them until (and only until) it becomes evident it has ended and a Bear Market has started. He knows he can safely disregard all the intervening Secondary Reactions and Minor Fluctuations. The trader, however, may well concern himself also with the Secondary Swings, and it will appear later on in this book that he can do so with profit.

4. **The Secondary Trends:** These are the important reactions that interrupt the progress of prices in the Primary Direction. They are the Intermediate Declines or corrections that occur during Bull Markets and the Intermediate Rallies or recoveries that occur in Bear Markets. Normally, they last for three weeks to many months, rarely longer. Normally, they retrace from one-third to two-thirds of the gain (or loss, as the case may be) in prices registered in the preceding swing in the Primary Direction. Thus, in a Bull Market, prices in terms of the Industrial Average might rise steadily, or with only brief and minor interruptions, for a total gain of 30 points before a Secondary Correction occurred. That correction might then be expected to produce a decline of not less than 10 points and not more than 20 points before a new Intermediate Advance in the Primary Bull Trend develops.

Note, however, the one-third/two-thirds rule is not an unbreakable law; it is simply a statement of probabilities. Most Secondaries are confined within these limits; many of them stop very close to the halfway mark, retracing 50% of the preceding Primary Swing. They seldom run less than one-third, but some of them cancel nearly all of it.

Thus, we have two criteria by which to recognize a Secondary Trend. Any price movement contrary in direction to the Primary Trend that lasts for at least three weeks and retraces at least one-third of the preceding net move in the Primary Direction (from the end of the preceding Secondary to the beginning of this one, disregarding Minor Fluctuations) is labelled as Intermediate Rank, that is, a true Secondary. Despite these criteria, however, the Secondary Trend is often confusing in its recognition, and its correct appraisal at the time it develops, and while it is in process poses the Dow theorist's most difficult problem. We shall have more to say about this later.

5. **The Minor Trends:** These are the brief (rarely as long as three weeks—usually less than six days) fluctuations that are, so far as the Dow Theory is concerned, meaningless in themselves, but which, *in toto*, make up the Intermediate Trends. Usually, but not always, an Intermediate Swing, whether a Secondary or the segment of a Primary between successive Secondaries, is made up of a series of three or more distinguishable Minor Waves. Inferences drawn from these day-to-day fluctuations are quite apt to be misleading. The Minor Trend is the only one of the three trends that can be “manipulated” (although it is, in fact, doubtful if under present conditions even that can be purposely manipulated to any important extent). Primary and Secondary Trends cannot be manipulated; it would strain the resources of the U.S. Treasury to do so.

Right here, before we go on to state a sixth Dow tenet, we may well take time out for a few minutes to clarify the concept of the three trends by drawing an analogy between the movements of the stock market and the movements of the sea. The Major (Primary) Trends in stock prices are like the tides. We can compare a Bull Market to an incoming or flood tide that carries the water farther and farther up the beach until finally it reaches high-water mark and begins to turn; it then follows the receding or ebb tide, comparable to a Bear Market. But all the time, during both ebb and flow of the tide, the waves are rolling in, breaking on the beach, and then receding. Although the tide is rising, each succeeding wave pushes a little farther up onto the shore and, as it recedes, does not carry the water quite so far back as did its predecessor. During the tidal ebb, each advancing wave falls a little short of the mark set by the one before it, and each receding wave uncovers a little more of the beach. These waves are the Intermediate Trends, Primary or Secondary, depending on whether their movement is with or against the direction of the tide. Meanwhile, the surface of the water is constantly agitated by wavelets, ripples, and “cat’s-paws” moving with or against or across the trend of the waves—these are analogous to the market’s Minor Trends, its unimportant day-to-day fluctuations. The tide, the wave, and the ripple represent, respectively, the Primary or Major, the Secondary or Intermediate, and the Minor Trends of the market.

Tide, wave, and ripple

A shore dweller who had no tide table might set about determining the direction of the tide by driving a stake in the beach at the highest point reached by an incoming wave. Then, if the next wave pushed the water up beyond his stake, he would know the tide was rising. If he shifted his stake with the peak mark of each wave, a time would come when one wave would stop and start to recede short of his previous mark; then he would know that the tide had turned and had started to ebb. That, in effect (and much simplified), is what the Dow theorist does in defining the trend of the stock market.

The comparison with tide, wave, and ripple has been used since the earliest days of the Dow Theory. It is even possible that the movements of the sea may have suggested the elements of the theory to Dow. But the analogy cannot be pushed too far. The tides and waves of the stock market are not as regular as those of the ocean. Tables can be prepared years in advance to predict accurately the time of every ebb and flow of the waters, but no timetables are provided by the Dow Theory for the stock market. We may return to some points of this comparison later, but we must proceed now to take up the remaining tenets and rules of the Theory.

Major trend phases

1. **The Bull Market:** Primary Uptrends are usually (but not invariably) divisible into three phases. The first is the phase of *accumulation* during which farsighted investors, sensing that business, although now depressed, is due to turn up, are willing to pick up all the shares offered by discouraged and distressed sellers and to raise their bids gradually as such selling diminishes in volume. Financial reports are still bad—in fact, often at their worst—during this phase. The public is completely disgusted with the stock market—out of it entirely. Activity is only moderate but beginning to increase on the rallies (Minor Advances).

The second phase is one of fairly steady advance and increasing activity as the improved tone of business and a rising trend in corporate earnings begin to attract

attention. It is during this phase that the technical trader normally is able to reap his best harvest of profits.

Finally comes the third phase when the market boils with activity as the public flocks to the boardrooms. All the financial news is good, price advances are spectacular and frequently make the front page of the daily papers, and new issues are brought out in increasing numbers. It is during this phase that one of your friends will call up and blithely remark, "Say, I see the market is going up. What's a good buy?"—oblivious to the fact it has been going up for perhaps two years, has already gone up a long way, and is now reaching the stage at which it might be more appropriate to ask, "What's a good thing to sell?" In the last stage of this phase, with speculation rampant, volume continues to rise, but "air pockets" appear with increasing frequency; the "cats and dogs" (low-priced stocks of no investment value) are whirled up, but more and more of the top-grade issues refuse to follow.

2. **The Bear Market:** Primary Downtrends are also usually (but again, not invariably) characterized by three phases. The first is the *distribution period* (which really starts in the later stages of the preceding Bull Market). During this phase, farsighted investors sense the fact that business earnings have reached an abnormal height and unload their holdings at an increasing pace. Trading volume is still high, although tending to diminish on rallies, and the public is still active but beginning to show signs of frustration, as hoped-for profits fade away.

The second phase is the *panic phase*. Buyers begin to thin out and sellers become more urgent; the downward trend of prices suddenly accelerates into an almost vertical drop, whereas volume mounts to climactic proportions. After the Panic Phase (which usually runs too far relative to then-existing business conditions), there may be a fairly long Secondary Recovery or a sideways movement, and then the third phase begins.

This is characterized by discouraged selling on the part of those investors who held on through the Panic or, perhaps, bought during it because stocks looked cheap in comparison with prices that had ruled a few months earlier. The business news now begins to deteriorate. As the third phase proceeds, the downward movement is less rapid, but it is maintained by more and more distress selling from those who have to raise cash for other needs. The "cats and dogs" may lose practically all their previous Bull Advance in the first two phases. Better-grade stocks decline more gradually, as their owners cling to them to the last. In consequence, the final stage of a Bear Market is frequently concentrated in such issues. The Bear Market ends when everything in the way of possible bad news, the worst to be expected, has been discounted, and it is usually over before all the bad news is "out."

The three Bear Market phases described in the preceding paragraph are not the same as those named by others who have discussed this subject, but the writers of this study feel they represent a more accurate and realistic division of the Primary down moves of the past 30 years. The reader should be warned, however, that no two Bear Markets are exactly alike, and neither are any two Bull Markets. Some may lack one or another of the three typical phases. A few Major Advances have passed from the first to the third stage with only a brief and rapid intervening mark-up. A few short Bear Markets have developed no marked Panic Phase and others have ended with it, as in April 1939. No time limits can be set for any phase; the third stage of a Bull Market, for example, the phase of excited speculation and great public activity, may last for more than a year or run out in a month or two. The Panic Phase of a Bear Market is usually exhausted in a very few weeks if not in days, but the 1929 through

1932 decline was interspersed with at least five Panic Waves of major proportions. Nevertheless, the typical characteristics of Primary Trends are well worth keeping in mind. If you know the symptoms that normally accompany the last stage of a Bull Market, for example, you are less likely to be deluded by its exciting atmosphere.

Principle of confirmation

1. **The two Averages must confirm:** This is the most-often questioned and the most difficult to rationalize of all the Dow principles. Yet it has stood the test of time; the fact it has worked is not disputed by any who have carefully examined the records. Those who have disregarded it in practice have, more often than not, had occasion to regret their apostasy. What it means is that no valid signal of a change in trend can be produced by the action of one Average alone. Take, for example, the hypothetical case shown in [Diagram 3.1](#). In this, we assume that a Bear Market has been in effect for several months and then, starting at **a**, the Industrial Average rises (along with the Rails) in a Secondary Recovery to **b**. On their next decline, however, the Industrials drop only to **c**, which is higher than **a**, and then turn up to **d**, which is higher than **b**.

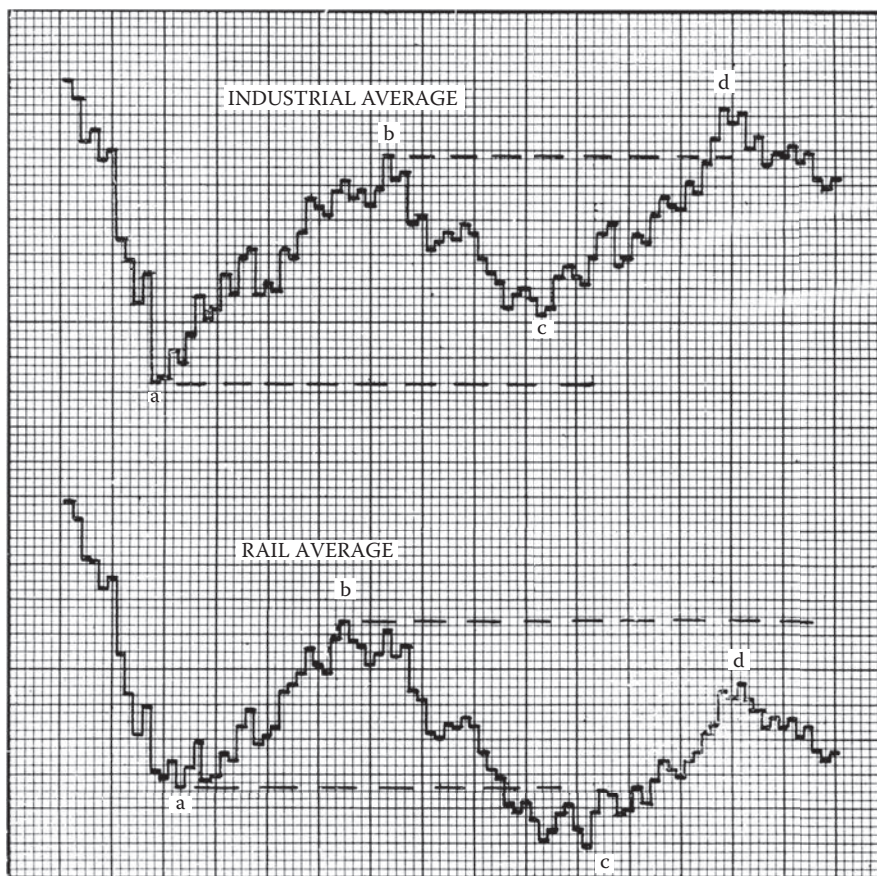


Diagram 3.1 A hypothetical daily market chart to show how one average may fail to confirm the other's Dow signal. Closing prices, indicated by short horizontal dashes, are connected with vertical lines to make the day-to-day trend easier to follow.

At this point, the Industrials have “signaled” a change in trend from down to up. But note the Rails during this period: their decline from **b** to **c** carried them lower than **a**, and their subsequent advance from **c** to **d** has not taken them above **b**. They have (so far) refused to *confirm* the Industrials and, hence, the Major Trend of the market must be regarded as *still down*. Should the Rails go on to rise eventually above their **b**, then, and then only, would we have a definite signal of a turn in the tide. Until such a development, however, the chances remain that the Industrials will not be able to continue their upward course alone, that they ultimately will be dragged down again by the Rails. At best, the direction of the Primary Trend is still in doubt.

This example illustrates only one of the many ways in which the *principle of confirmation* applies. Note also that at **c**, it might have been said that the Industrials had thus far not confirmed the Rails in continuing the Downtrend, but this had to do only with the continuation or reaffirmation of an existing trend. It is not necessary that the two Averages confirm on the same day. Frequently, both will move into new high (or low) ground together, but there are plenty of cases in which one or the other lags behind for days, weeks, or even a month or two. One must be patient in these doubtful cases and wait until the market declares itself in definite fashion.

2. **“Volume goes with the trend”:** Those words, which you may often hear spoken with ritual solemnity but little understanding, are the colloquial expression for the general truth that trading activity tends to expand as prices move in the direction of the prevailing Primary Trend. Thus, in a Bull Market, volume increases when prices rise and dwindles as prices decline; in Bear Markets, turnover increases when prices drop and dries up as they recover. To a lesser degree, this holds for Secondary Trends also, especially in the early stages of an extended Secondary Recovery within a Bear Market, when activity may show a tendency to pick up on the Minor Rallies and diminish on the Minor Setbacks. But to this rule, again, there are exceptions, and useful conclusions can seldom be drawn from the volume manifestations of a few days, much less from a single trading session; it is only the overall and relative volume trend over a period of time that may produce helpful indications. Moreover, in Dow Theory, *conclusive* signals as to the market’s trend are produced in the final analysis only by price movement. Volume simply affords collateral evidence that may aid interpretation of otherwise doubtful situations. (We shall have much more to say in later chapters about volume in specific relation to other technical phenomena.)
3. **“Lines” may substitute for Secondaries:** A *line* in Dow Theory parlance is a sideways movement (as it appears on the charts) in one or both of the Averages, which lasts for two or three weeks or, sometimes, for as many months, in the course of which prices fluctuate within a range of approximately 5% or less (of their mean figure). The formation of a Line signifies that pressure of buying and selling is more or less in balance. Eventually, of course, either the offerings within that price range are exhausted and those who want to buy stocks have to raise their bids to induce owners to sell, or else those who are eager to sell at the Line price range find that buyers have vanished and that, in consequence, they must cut their prices to dispose of their shares. Hence, an advance in prices through the upper limits of an established Line is a Bullish Signal and, conversely, a breakdown through its lower limits is a Bearish Signal. Generally speaking, the longer the Line (in duration) and the narrower or more compact its price range, the greater the significance of its ultimate breakout.

Lines occur often enough to make their recognition essential to followers of Dow’s principles. They may develop at important Tops or Bottoms, signaling periods of distribution or of accumulation, respectively, but they come more frequently as

interludes of rest or Consolidation in the progress of established Major Trends. Under those circumstances, they take the place of normal Secondary Waves. A Line may develop in one Average while the other is going through a typical Secondary Reaction. A price movement out of a Line, either up or down, is usually followed by a more extensive additional move in the same direction than can be counted on to follow the “signal” produced when a new wave pushes beyond the limits set by a preceding Primary Wave. The direction in which prices will break out of a Line cannot be determined in advance of the actual movement. The 5% limit ordinarily assigned to a Line is arbitrarily based on experience; there have been a few slightly wider sideways movements that, by virtue of their compactness and well-defined boundaries, could be construed as true Lines. (Later in this book, we shall see that the Dow Line is, in many respects, similar to the more strictly defined patterns known as rectangles that appear on the charts of individual stocks.)

4. **Only closing prices used:** Dow Theory pays no attention to any extreme highs or lows that may be registered during a day and before the market closes, but takes into account only the closing figures, that is, the average of the day’s final sale prices for the component issues. We have discussed the psychological importance of the end-of-day prices under the subject of chart construction and need not deal with it further here, except to say that this is another Dow rule that has stood the test of time. It works thus: suppose an Intermediate Advance in a Primary Uptrend reaches its peak on a certain day at 11:00 a.m., at which hour the Industrial Average figures at, say, 152.45, and then falls back to close at 150.70. All that the next advance will have to do to indicate the Primary Trend is still *up* is register a daily close above 150.70. The previous intraday high of 152.45 does not count. Conversely, using the same figures for our first advance, if the next upswing carries prices to an intraday high at, say, 152.60, but fails to register a closing price above 150.70, the continuation of the Primary Bull Trend is still in doubt.

In recent years, differences of opinion have arisen among market students as to the extent to which an Average should push beyond a previous limit (Top or Bottom figure) to signal (or confirm or reaffirm, as the case may be) a market trend. Dow and Hamilton evidently regarded any penetration, even as little as 0.01, in closing price as a valid signal, but some modern commentators have required penetration by a full point (1.00). We think the original view has the best of the argument—that is, that the record shows little or nothing in practical results to favor any of the proposed modifications. One incident in June 1946, to which we shall refer in the following chapter (*EN10: Now in Appendix A*), shows a decided advantage for the orthodox “any-penetration-whatever” rule.

5. **A trend should be assumed to continue in effect until such time as its reversal has been definitely signaled:** This Dow Theory tenet is one that, perhaps more than any other, has evoked criticism. Yet, when correctly understood, it, like all the others we have enumerated, stands up under practical test. What it states is really a *probability*. It is a warning against changing one’s market position too soon, against “jumping the gun.” It does not imply that one should delay action by one unnecessary minute once a signal of change in trend has appeared. But it expresses the experience that the odds are in favor of the man who waits until he is sure, and against the other fellow who buys (or sells) prematurely. These odds cannot be stated in mathematical language such as 2–1 or 3–1; as a matter of fact, they are constantly changing. Bull Markets do not climb forever and Bear Markets always reach a Bottom sooner or later. When a new Primary Trend is first definitely

signaled by the action of the two Averages, the odds that it will be continued, despite any near-term reactions or interruptions, are at their greatest. But as this Primary Trend carries on, the odds in favor of its further extension grow smaller. Thus, each successive reaffirmation of a Bull Market (new Intermediate high in one average confirmed by a new Intermediate high in the other) carries relatively less weight. The incentive to buy, the prospect of selling new purchases at a profit, is smaller after a Bull Market has been in existence for several months than it was when the Primary Uptrend was first recognized; this 12th Dow tenet says, “Hold your position pending contrary orders.”

A corollary to this tenet, which is not so contradictory as it may at first seem, is this: a reversal in trend can occur *any time* after that trend has been confirmed. This can be taken simply as a warning that the Dow Theory investor must watch the market constantly if he has any commitment in it.

EN: Modern market importance of Dow Theory and necessity for moving to a new composite market theory

Dow Theory has much to recommend it. Concepts embodied within Dow Theory retain their validity to the present day and retain their importance as the foundation thinking for technical analysis. Concepts of waves, major, secondary, and minor movements are absolutely descriptive of the reality of the market. Other constructs within Dow Theory are similarly important—that all information is discounted; that major market movements are like the tide and, as it were, raise all boats; that trends tend to continue. These are not just theoretical musings, but observations of reality.

In addition to its technical validity, the Dow has now taken on a mythic dimension. It has a symbolic function that interacts with its originally intended purpose. Dow and Hamilton saw their measurement of the market as an economic barometer for the entire economy; its use as a tool for investing in the market came later.

In the opinion of this editor, the Dow Theory is no longer adequate to its original purpose—or even to its secondary purpose. It is a simple theory propounded in a simple time. Expounders of Dow Theory have implicitly recognized the necessity for evolutionary changes to the doctrine with the addition of the Rails (now Transportations) and the Utilities *ad infinitum*. Thirty stocks may have been sufficient originally to reflect the U.S. economy. No one would deny that simple paradigm must be changed to reflect an economic structure geometrically more diverse than that of Dow and Hamilton. Entering the twenty-first century, the U.S. and global economy require more sophisticated econometrics than the Dow alone.

For that reason, I consider that to fulfill the functions of the old Dow, we now must consider a variety of averages and indexes to measure the state of the market—not to mention the economy, which is another question, although not altogether another question, but at least another question. Magee foreshadowed some instruments of great value to this end in his writings, specifically on the Magee Evaluative Index ([Chapter 38](#)), which may be used for the entire market, and not just for one summary index or average. The value and power of this tool are still little used and understood.

In twenty-first-century markets, there are not just broad tides and markets flowing in one direction as they might on Magee’s Cape Cod. Instead, the currents, riptide, and crosscurrents are like the economy of the country, moved West. They are now symbolized by the Pacific Ocean roaring in and out of San Francisco Bay. Although the Dow is in a secondary Downtrend, the broader Standard & Poor’s 500 is going to new highs, and although they are both whipping sideways, the National Association of Securities Dealers Automated Quotations (NASDAQ) is rocketing into space. For this reason, I now believe that only a composite of the three indexes can express the true state of the markets as a whole. And, in addition, to dissect the entrails of the market, the Magee Evaluative Index should be run across the three indexes.

The Dow Theory required the Rails and Industrial Averages move in harmony to signal Bull or Bear Markets. In this century, there is a similar need for harmonic convergence among the averages to indicate to us the state of the markets as a whole.

When all three indexes agree in the direction of their trends, up or down or sideways, Bulls may be assumed to be safe in general, and vice versa for Bears. Failure of the three to be in harmony is a clear sign of mixed markets and advises one to arrange his bets and portfolio to correspond with economic uncertainty. Capital should flow naturally to the most productive area. What reason is there to ride the Dow down when the NASDAQ is raging up? If the investor follows the philosophy of this book, he will never sit passively through an extended Downtrend. At the very least, he will be hedged, if not outright short. (As Edwards and Magee preferred and as this editor prefers.)

EN10: Notes on Edwards' description of Dow Theory

We must keep in perspective Edwards' description of Dow Theory. When he speaks of Secondaries of 10 and 20 points, or a Primary of 30 points, we should be reminded that the entire market could be accommodated in the backseat of a Packard. The top in 1929 was approximately 386 and the bottom approximately 64; hence, 10, 20, or 30 points constituted important percentage moves.

Similarly, a primary market move of 20%, although still of importance, hardly describes the violence and range of modern markets. From March 2009 to November 2017, the Dow moved from 6469.95 to 23,602.12—a move of 17,132.17 or 264%.

chapter four

The Dow Theory's defects

EN10: Figures 2–9 from the ninth edition now appear in Appendix A along with Edwards' detailed account of Dow Theory operations.

Our readers, we suspect, heaved a deep sigh of relief when they closed the preceding chapter (EN10: [Chapter 4](#) in the ninth edition, now Appendix A), which covered a difficult, tedious, and, at times, confusing subject. Some may even wish at this point that the Dow Theory had never been conceived. Others doubtless spotted one or more of its real or supposed defects and have questions to ask. Before we proceed to more interesting chart matters, we had better devote a few pages to clearing up these questions.

First, let's take up the charge of "second-guessing," which is so often flung at writers on Dow Theory. It is a charge that will continue to crop up so long as opinions differ among Dow theorists at critical periods (which, unfortunately, is often the case). Even the most experienced and careful Dow analysts find it necessary occasionally to change their interpretations when a stand first ventured is rendered untenable by some subsequent action of the market. They would not attempt to deny it, but, they say, in the long run, surprisingly little is lost by such temporary misinterpretations. Many of them publish their comments regularly and can refer you to the printed files of opinions and advice expressed before and during the event, as well as after it. Regarding [Chapter 4](#) in the ninth edition (now Appendix A), the reader, if he cares to check such records, will find that the interpretations given therein (aside from the remarks made "in retrospect" and so labeled) were precisely the interpretations published at the time by the best-established Dow analysts. EN9: *Although, in the modern age Richard Russell (now deceased) (dowtheoryletters.com) was senior in terms of reputation, a host of other Dow theorists (actually trying to round them up is like herding cats) inhabit the scene, among them Jack Schannep (thedowtheory.com) and Richard Moroney (dowtheory.com) who must be taken into account when consulting the sacred-chicken bones. Robert W. Colby (robertwcolby.com) is also currently doing authoritative work in Dow Theory. Note that it is the chicken that is sacred, and the bones only secondarily.*

The Dow Theory is too late

The objection that the Dow Theory is too late is more valid. It is sometimes expressed in the rather intemperate statement that "the Dow Theory is a surefire system for depriving the investor of the first third and the last third of every Major Move, and sometimes there isn't any middle third!" Or, to give a specific example: A Primary Bull Market started in 1942 with the Industrial Average at 92.92 and ended in 1946 at 212.50, for a total gain of 119.58 Average points, but the strict Dow theorists could not buy until the Industrials were up to 125.88 and could not sell until prices had already declined to 191.04; thus, capturing, at best, only about 65 points, or not much more than half of the total move. This specific statement cannot be disputed, yet the answer to the general objection is to "try to find a man who first bought his stocks at 92.92 (or even within 5 points of that level) and stayed 100% long throughout the intervening years, and finally sold out at 212.50, or within 5 points thereof."

The reader is welcome to try; he will, in fact, find it very difficult to locate even a dozen who did as well as the Dow Theory.

A still better answer, because it comprehends all of the hazards of every known kind of Bull and Bear Market to date, is the overall dollars and cents record of the past 60 years. We are indebted to Richard Durant for permission to reprint the following computation of what would, in theory, have resulted if a fund of only \$100 could have been invested in the stocks of the Dow–Jones Industrial Average on July 12, 1897, when a Primary Bull Market was signaled by the Dow Theory, and those stocks were thereafter sold and repurchased when, and only when, the Dow Theory had definitely confirmed a change in the Major Trend (see [Table 4.1](#)).

Table 4.1 The Dow Theory's 60-Year Record

Signal	Date	Dow Jones Average Price	Loss (√)	Change (%)	Capital Gain	Accumulated Profit
Bought	7/12/1897	44.61				100
Sold	12/16/1899	63.84		43.11		143.11
Bought	10/20/1900	59.44				
Sold	6/1/1903	59.59		0.25	0.36	143.47
Bought	7/12/1904	51.37				
Sold	4/26/1906	92.44		79.95	114.7	258.18
Bought	4/24/1908	70.01				
Sold	5/3/1910	84.72		21.01	54.25	312.42
Bought	10/10/1910	81.91				
Sold	1/14/1913	84.96		3.72	11.63	324.05
Bought	4/9/1915	65.02				
Sold	8/28/1917	86.12		32.45	105.16	429.22
Bought	5/13/1918	82.16				
Sold	2/3/1920	99.96		21.67	92.99	522.21
Bought	2/6/1922	83.7				
Sold	6/20/1923	90.81		8.49	44.36	566.56
Bought	12/7/1923	93.8				
Sold	10/23/1929	305.85		226.07	1,280.81	1,847.38
Bought	5/24/1933	84.29				
Sold	9/7/1937	164.39		95.03	1,755.54	3,602.92
Bought	6/23/1938	127.41				
Sold	3/31/1939	136.42		7.07	254.79	3,857.7
Bought	7/17/1939	142.58				
Sold	5/13/1940	137.5	√	−3.56	−137.45	3,720.26
Bought	2/1/1943	125.88				
Sold	8/27/1946	191.04		51.76	1,925.74	5,646
Bought	10/2/1950	228.94				
Sold	4/2/1953	280.03		22.32	1,259.95	6,905.95
Bought	1/19/1954	288.27				
Sold	10/1/1956	468.7		62.59	4,322.48	11,228.43

In brief, an investment of \$100 in 1897 would have become \$11,228.43 in 1956 simply by buying the Industrial Average stocks each time the Dow Theory announced a Bull Market and holding them until the Dow Theory announced a Bear Market. During this period, the investor would have made 15 purchases and 15 sales, or about one transaction every two years on average.

The record is not perfect. It shows one losing transaction and three instances in which reinvestment would have been made at a higher level than the preceding liquidation. But, at that, it hardly needs defending. Also, it takes no account of commissions and transfer taxes, but neither does it include the dividends the investor would have received during the time he held his stocks; the latter would have added many more dollars to the fund.

For the enlightenment of the man who believes in “just buying good stocks and putting them away,” compare these results with the best that could have been done by buying shares only once at the lowest price recorded by the Industrial Average during these entire 60 years and selling them only once at the highest: \$100 invested at the all-time low, 29.64, on August 10, 1896, would have become only \$1,757.93 at the then all-time high, 521.05, 60 years later on April 6, 1956. Compare this to the \$11,228.43 gained from the Dow Theory program.

EN: This record of the Dow Theory is updated to end of year 2017 in [Table 4.2](#). I have left this record as is so that the reader may clearly distinguish my work from that of Edwards.

The Dow Theory is not infallible

The Dow Theory is not infallible. It depends on interpretation and is subject to all the hazards of human interpretive ability. But, again, the record speaks for itself.

The Dow Theory frequently leaves the investor in doubt

The fact that the Dow Theory frequently leaves the investor in doubt is true in one sense, yet not in another. There is never a time when the Dow Theory does not afford a presumptive answer to the question of the direction of the Primary Trend. That answer will be wrong for a relatively short time at the beginning of each new Major Swing. There will also be times when a good Dow analyst should say, “The Primary Trend is still presumably up, but it has reached a dangerous stage, and I cannot conscientiously advise you to buy now. It may be too late.”

Frequently, however, the above objection simply reflects the inability of the critic mentally to accept the fundamental concept that the Averages discount all the news and statistics. He doubts the Dow Theory because he cannot reconcile its message with his own ideas, derived from other sources, of what stocks should do. The theory is usually more nearly right.

This criticism in other cases reflects nothing but impatience. There may be weeks or months (as, e.g., during the formation of a Line) when the Dow Theory cannot “talk.” The active trader quite naturally rebels, but patience is a virtue in the stock market as elsewhere—in fact, essential if serious mistakes are to be avoided.

The Dow Theory does not help the Intermediate Trend investor

It is perfectly true that the Dow Theory does not help the Intermediate Trend investor, as it gives little or no warning of changes in Intermediate Trend. Yet, if a fair share of these can be captured, the profit amounts to more than can be derived from the Primary Trend alone. Some traders have worked out supplementary rules on the basis of Dow principles

Table 4.2 The Dow Theory's 121-Year Record

	Signal	Date	Average Price	Loss (✓)	Percentage Change (%)	Capital Gain	Accumulated Wealth
1	Buy	7/12/1897	44.61				100.00
2	Sell	12/16/1899	63.84		43.11		143.11
3	Buy	10/20/1900	59.44				
4	Sell	6/1/1903	59.59		0.25	0.36	143.47
5	Buy	7/12/1904	51.37				
6	Sell	4/26/1906	92.44		79.950	114.70	258.18
7	Buy	4/24/1908	70.01				
8	Sell	5/3/1910	84.72		21.01	54.25	312.42
9	Buy	10/10/1910	81.91				
10	Sell	1/14/1913	84.96		3.72	11.63	324.05
11	Buy	4/9/1915	65.02				
12	Sell	8/28/1917	86.12		32.45	105.16	429.22
13	Buy	5/13/1918	82.16				
14	Sell	2/3/1920	99.96		21.67	92.99	522.21
15	Buy	2/6/1922	83.7				
16	Sell	6/20/1923	90.81		8.49	44.36	566.56
17	Buy	12/7/1923	93.8				
18	Sell	10/23/1929	305.85		226.07	1280.81	1,847.38
19	Buy	5/24/1933	84.29				
20	Sell	9/7/1937	164.39		95.03	1755.54	3,602.92
21	Buy	6/23/1938	127.41				
22	Sell	3/31/1939	136.42		7.07	254.79	3,857.70
23	Buy	7/17/1939	142.58				
24	Sell	5/13/1940	137.5	×	−3.56	−137.45	3,720.26
25	Buy	2/1/1943	125.88				
26	Sell	8/27/1946	191.04		51.76	1925.74	5,646.00
27	Buy	10/2/1950	228.94				
28	Sell	4/2/1953	280.03		22.32	1259.95	6,905.95
29	Buy	1/19/1954	288.27				
30	Sell	10/1/1956	468.7		62.59	4322.48	11,228.43
31	Buy	5/2/1958	459.56				
32	Sell	3/3/1960	612.05		33.18	3725.79	14,954.22
33	Buy	2/23/1961	654.42				
34	Sell	4/26/1962	678.68		3.71	554.37	15,508.59
35	Buy	11/9/1962	616.13				
36	Sell	5/5/1966	899.77		46.04	7139.49	22,648.08
37	Buy	1/11/1967	822.49				
38	Sell	10/24/1967	888.18		7.99	1808.84	24,456.92
39	Buy	10/1/1968	942.32				
40	Sell	2/25/1969	899.8	×	−4.51	−1103.56	23,353.36
41	Buy	10/27/1969	860.28				
42	Sell	1/26/1970	768.88	×	−10.62	−2481.17	20,872.19

(Continued)

Table 4.2 (Continued) The Dow Theory's 121-Year Record

	Signal	Date	Average Price	Loss (×)	Percentage Change (%)	Capital Gain	Accumulated Wealth
43	Buy	9/28/1970	758.97				
44	Sell	7/28/1971	872.01		14.89	3108.68	23,980.87
45	Buy	2/10/1972	921.28				
46	Sell	2/23/1973	959.89		4.19	1005.02	24,985.88
47	Buy	1/27/1975	692.66				
48	Sell	10/24/1977	802.32		15.83	3955.70	28,941.58
49	Buy	6/6/1978	866.51				
50	Sell	7/2/1981	959.19		10.70	3095.53	32,037.11
51	Buy	10/7/1982	965.97				
52	Sell	1/25/1984	1231.89		27.53	8819.43	40,856.54
53	Buy	11/6/1984	1244.15				
54	Sell	10/15/1987	2355.09		89.29	36482.07	77,338.61
55	Buy	2/29/1988	2071.62				
56	Sell	10/13/1989	2569.26		24.02	18578.11	95,916.72
57	Buy	6/4/1990	2935.19				
58	Sell	8/3/1990	2809.65	×	−4.28	−4102.42	91,814.30
59	Buy	1/18/1991	2646.78				
60	Sell	10/5/1992	3179		20.11	18462.21	110,276.51
61	Buy	11/25/1992	3266.22				
62	Sell	8/4/1998	8487.31		159.85	176278.26	286,554.76
63	Buy	11/2/1998	8706.5				
64	Sell	9/23/1999	10318.59		18.52	53058.30	339,613.06
65	Buy	11/8/2001	9587.52				
66	Sell	6/25/2002	9126.8	×	−4.81	−16319.81	323,293.25
67	Buy	1/6/2003	8773.57				
68	Sell	11/21/2007	12799.04		45.88	148332.69	471,625.94
69	Buy	4/18/2008	12849.36				
70	Sell	9/29/2008	10365.45	×	−19.33	−91170.02	380,455.93
71	Buy	4/9/2009	8083.38				
72	Sell	6/30/2010	9774.02		20.92	79572.41	460,028.33
73	Buy	9/27/2010	10812.04				
74	Sell	8/2/2011	11866.62		9.75	44870.04	504,898.37
75	Buy	12/23/2011	12294				
76	Sell	6/4/2012	12101.46		−1.57	−7907.36	496,991.01
77	Buy	1/18/2013	13649.7				
78	Sell	8/20/2015	16990.69		24.48	121646.78	618,637.78
79	Buy	10/19/2015	17084.49				
80	Sell	1/6/2016	16906.51		−1.04	−6444.74	612,193.04
81	Buy	4/20/2016	18053.6	×			
82	Sell	6/24/2016	17400.75		−3.62	−15926.29	596,266.75
83	Buy	9/7/2016	18526.14				
84	Sell	12/29/2017	24719.22		33.43	199325.26	795,592.01

that they apply to Intermediate Movements, but these have not proved to be satisfactory. The remainder of our book is devoted to a better approach to this problem.

The Dow Theory is a mechanical device designed to tell the direction of the Primary Market Trend, which is important because, as said at the beginning of this book, most stocks tend to go with the trend. The Dow Theory does not and cannot tell you which individual stocks to buy, aside from those stocks that make up the Averages. That, again, is a problem for the remainder of this book.

EN: An old criticism, irrelevant in modern markets.

“The Dow Theory does not tell you which stocks to buy.” This was true at the time Edwards wrote this, but in modern markets, the investor can buy substitute instruments that almost perfectly mimic its behavior (DIA). This is possible because the investor can trade in surrogates for the Dow Averages in present markets (see [Chapter 15](#)).

The Dow Theory in the 20th and 21st centuries

As may be seen in [Table 4.2](#), augmenting [Table 4.1](#), the Dow Theory continued to provide its user an advantage over the unaware Buy-and-Hold Investor. From its original investment of \$100 in 1897, the Dow Theory investment would have grown to \$795,592.01 by December 29, 2017, with the long trade still open. [Table 4.2](#) shows the details, including the post-2000 bust drawdown. To my mind, this table is a powerful demonstration of the effectiveness of methodical technical investing, be it Dow Theory or some other robust method—which I will discuss in [Chapter 5](#).

By contrast, the buy-and-hold investment of \$100, if bought at the low, 29.64, and sold at the close, December 29, 2017, would have grown to \$55,411.83.

I am indebted to Jack Schanep of *TheDowTheory.Com* (<http://www.thedowtheory.com>) for the data recapitulated here. On Schanep’s website, a clear exposition of the Dow Theory and its record may be found—much more complete than that which is found here, outside of Edwards’ magisterial presentation.

Minor discrepancies are acknowledged within these and others’ data, a point that will be raised by purists. This is occasioned by disagreements within the priestly circles of those who keep the sacred records. That is, not all theorists are in 100% agreement as to the exact date or nature of the signals. (Some will say the reentry date of October 1, 1956 should have been October 7, 1957, for example.) Meaning some judgment is involved in interpretation of the entrails. The Dow Theory is not a 100% objective algorithm, just as chart analysis is not reducible to an objective algorithm. (I am allowed to jest at the priesthood as I am a minor acolyte in these matters. It would not be seemly for the uninitiated to burlesque.)

In brief, an investment of \$100 in 1897 would have become \$795,592.01 simply by buying the Industrial Average stocks each time the Dow Theory announced a Bull Market and holding them until the Dow Theory announced a Bear Market, and then selling, with the entire equity reinvested on each trade.

The Technical Investor would have had this amount in pocket marked to market at the end of 2017, as opposed to the \$55,411.83 of his dozing counterpart, or the Trust Department of the Rip Van Winkle Bank of Sleepy Hollow. And, in addition, he would not have been illiquidified during Bear Markets.

Whether the Dow Theory retains its validity over the market as a whole, there can be no question that it still calls the turn for its sector of the market, which as Jack Schanep correctly notes, has five times the capitalization of the NASDAQ (see [Table 4.2](#)).

As Mark Twain observed, everybody talks about the Dow Theory, but nobody does anything about it. Perhaps that is not precisely what Twain said, but close enough for

government work. As further inquiry into the inner workings of the Dow Theory, I initiated a series of studies of the record with Brian Brooker, who holds a master's of science in finance from Golden Gate University, and Matt Mullens, and Nehemiah Brown III my graduate students at Golden Gate University. Included here are some of the results of our study, from the book, *Sacred Chickens, the Holy Grail and Dow Theory* (Amazon).

It seems obvious that the risk characteristics of Dow Theory investing are unique, and I will belabor the obvious. The Buy-and-Hold Investor mentioned above for comparison with the Dow Theory Investor not only realized less profit over the period of his investment but also experienced greatly expanded risk over the life of the investment. At first blush, all the profits garnered by the reversing investor in [Table 4.3](#) represent risk actually experienced by the Buy-and-Hold Investor—but that is only first blush. A little deeper thought reveals the true extent of the Buy-and-Hold Investor's risk is measured by maximum drawdowns over any given period of time. It is not necessary to theorize about this question; the measurement is empirical.

When viewed in perspective, these risks are startling. From the top in 2000 to the low in 2002, a 39% drawdown occurred. Is this disquieting? A 41% drawdown occurred during the Reagan crash of 1987. A mere bagatelle. The Hoover drawdown from 1929 to 1932 was 89%. Such things are unlikely to happen again. The big guys would step in and support the market.

Clearly, the way to reduce market risk to zero is to be out of the market. Less obviously, or perhaps blatantly, the second most important way to reduce risk is to be right about the trend—or to not be wrong. Moreover, because of the nature of the Dow Theory, much time is spent on the sidelines by the Dow investor. This is a natural reduction of risk. In fact, of the total days from 1897 to 2018, 44,193, the Dow Investor spent 15,492 (or about 35% of the time) days at the beach or at the S&L. But his accumulated profits have not been credited with interest, as this is a “pure” study.

As will be readily apparent, [Table 4.3](#) is much richer in data than just the duration of investments in the long side of the market. Acting on the maxim (my own) that it is unwise to invest on only one side of the market, I have computed the accumulated profits gained by trading the Dow long and short. After all, the market goes down as well as up, and for a reversing system a liquidation of longs is a signal to go short. If the record on the long side is impressive, showing accumulated profits to 2018 of \$795,592.01, how much more impressive is the accumulated profit of \$5,757,390.17 garnered from trading both sides of the Dow, long and short?

The reader who listens carefully will hear the metamessage. For the great majority of investors, it is the long run that is important. In the right-now culture of the internet and computer age and the get-rich-quick mentality, one wonders whether there are still such investors, outside of the very rich and very intelligent. Perhaps there are still a few aging readers of early editions of this book, and, not to despair, perhaps some new converts.

A note of caution is in order here: beware of spreadsheets run amuck. As the spreadsheet serenely grinds through a trade it doesn't care how it may be creating a fantasy universe. Likewise, the more transactions the greater the eventual figure as the compounding effect of reinvesting the total bankroll on every roll of the dice. This being said, putting the matter into mathematical perspective and discounting inflated totals still makes the performance impressive—much more so considering most professional fund managers can't beat the market.

Table 4.3 Performance of Dow Theory through 2017: Longs and Shorts

Trade#	Signal	Date	Price	PL%	Accumulated Profit	Bull	Bear
1	Long	7/12/1897	44.61		100.00		
2	Short	12/16/1899	63.84	43.11	143.11	887	
3	Long	10/20/1900	59.44	6.89	152.97		308
4	Short	6/1/1903	59.59	0.25	153.36	954	
5	Long	7/12/1904	51.37	13.79	174.51		407
6	Short	4/26/1906	92.44	79.95	314.04	653	
7	Long	4/24/1908	70.01	24.26	390.24		729
8	Short	5/3/1910	84.72	21.01	472.23	739	
9	Long	10/10/1910	81.91	3.32	487.89		160
10	Short	1/14/1913	84.96	3.72	506.06	827	
11	Long	4/9/1915	65.02	23.47	624.83		815
12	Short	8/28/1917	86.12	32.45	827.60	872	
13	Long	5/13/1918	82.16	4.60	865.66		258
14	Short	2/3/1920	99.96	21.67	1,053.20	631	
15	Long	2/6/1922	83.7	16.27	1,224.52		734
16	Short	6/20/1923	90.81	8.49	1,328.54	499	
17	Long	12/7/1923	93.8	-3.29	1,284.79		170
18	Short	10/23/1929	305.85	226.07	4,189.28	2147	
19	Long	5/24/1933	84.29	72.44	7,224.02		1309
20	Short	9/7/1937	164.39	95.03	14,088.94	1567	
21	Long	6/23/1938	127.41	22.50	17,258.28		289
22	Short	3/31/1939	136.42	7.07	18,478.73	281	
23	Long	7/17/1939	142.58	-4.52	17,644.33		108
24	Short	5/13/1940	137.5	-3.56	17,015.68	301	
25	Long	2/1/1943	125.88	8.45	18,453.66		994
26	Short	8/27/1946	191.04	51.76	28,005.93	1303	
27	Long	10/2/1950	228.94	-19.84	22,449.90		1497
28	Short	4/2/1953	280.03	22.32	27,459.79	913	
29	Long	1/19/1954	288.27	-2.94	26,651.78		292
30	Short	10/1/1956	468.7	62.59	43,333.29	986	
31	Long	5/2/1958	459.56	1.95	44,178.32		578
32	Short	3/3/1960	612.05	33.18	58,837.46	671	
33	Long	2/23/1961	654.42	-6.92	54,764.35		586
34	Short	4/26/1962	678.68	3.71	56,794.52	198	
35	Long	11/9/1962	616.13	9.22	62,028.94		197
36	Short	5/5/1966	899.77	46.04	90,584.42	1273	
37	Long	1/11/1967	822.49	8.59	98,364.60		251
38	Short	10/24/1967	888.18	7.99	106,220.70	286	
39	Long	10/1/1968	942.32	-6.10	99,745.90		343
40	Short	2/25/1969	899.8	-4.51	95,245.10	147	
41	Long	10/27/1969	860.28	4.39	99,428.35		244
42	Short	1/26/1970	768.88	-10.62	88,864.63	91	

(Continued)

Table 4.3 (Continued) Performance of Dow Theory through 2017: Longs and Shorts

Trade#	Signal	M/D/Y	Price	PL%	Accumulated Profit	Bull	Bear
43	Long	9/28/1970	758.97	1.29	90,010.00		245
44	Short	7/28/1971	872.01	14.89	1,03,415.97	303	
45	Long	2/10/1972	921.28	-5.65	97,572.80		197
46	Short	2/23/1973	959.89	4.19	101,661.99	411	
47	Long	1/27/1975	692.66	27.84	129,964.33		588
48	Short	10/24/1977	802.32	15.83	150,539.92	1084	
49	Long	6/6/1978	866.51	-8.00	138,495.90		225
50	Short	7/2/1981	959.19	10.70	153,309.11	135	
51	Long	10/7/1982	965.97	-0.71	152,225.45		572
52	Short	1/25/1984	1231.89	27.53	194,131.30	415	
53	Long	11/6/1984	1244.15	-1.00	192,199.27		462
54	Short	10/15/1987	2355.09	89.29	363,819.94	475	
55	Long	2/29/1988	2071.62	12.04	407,611.06		362
56	Short	10/13/1989	2569.26	24.02	505,526.50	997	
57	Long	6/4/1990	2935.19	-14.24	433,526.27		84
58	Short	8/3/1990	2809.65	-4.28	414,984.06	645	
59	Long	1/18/1991	2646.78	5.80	439,039.89		234
60	Short	10/5/1992	3179	20.11	527,322.94	60	
61	Long	11/25/1992	3266.22	-2.74	512,855.15		124
62	Short	8/4/1998	8487.31	159.85	1,332,659.97	2799	
63	Long	11/2/1998	8706.5	-2.58	1,298,243.21		42
64	Short	9/23/1999	10318.59	18.52	1,538,625.09	373	
65	Long	11/8/2001	9587.52	7.08	1,647,636.37		777
66	Short	6/25/2002	9126.8	-4.81	1,568,460.62	229	
67	Long	1/6/2003	8773.57	3.87	1,629,163.97		195
68	Short	11/21/2007	12799.04	45.88	2,376,653.39	1780	
69	Long	4/18/2008	12849.36	-0.39	2,367,309.47		149
70	Short	9/29/2008	10365.45	-19.33	1,909,684.83	149	
71	Long	4/9/2009	8083.38	22.02	2,330,123.36		192
72	Short	6/30/2010	9774.02	20.92	2,817,468.97	447	
73	Long	9/27/2010	10812.04	-10.62	2,518,248.26		89
74	Short	8/2/2011	11866.62	9.75	2,763,872.05	309	
75	Long	12/23/2011	12294	3.60	2,863,413.76		143
76	Short	6/4/2012	12101.46	-1.57	2,818,568.99	164	
77	Long	1/18/2013	13649.7	12.79	3,179,171.86		228
78	Short	8/20/2015	16990.69	24.48	3,957,326.79	944	
79	Long	10/19/2015	17084.49	0.55	3,979,173.89		60
80	Short	1/6/2016	16906.51	-1.04	3,937,720.30	79	
81	Long	4/20/2016	18053.6	6.78	4,204,890.74		105
82	Short	6/24/2016	17400.75	-3.62	4,052,834.47	65	
83	Long	9/7/2016	18526.14	6.47	4,314,950.73		75
84	MtoMkt	12/31/2017	24719.22	33.43	5,757,390.17	480	
85							15417



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Replacing Dow Theory with John Magee's Basing points Procedure

I have humorously compared the interpretation of the market using Dow Theory to the ancient Roman practice of haruspication—that is, the examination of animal or bird entrails to forecast the future. Dow Theory analysts examine the market and venture their expert opinions as to whether Dow Theory says the market is a buy, a sell, or a hold. Sometimes it seems as if they might be sitting on a tripod at Delphi and inhaling substances legal in California but forbidden in Washington, D.C. Additionally, from the same data they often extract different conclusions. (No disrespect of Dow theorists is intended. Some of my best friends are Dow analysts.) From this observation came the motivation to look for a better way. That better way is found in [Chapter 28](#) in which Magee outlined (and I have further articulated) a method that is eminently adaptable to long-long term investing. We are talking about investments that might last for years. One reason the rich get richer is they practice this kind of investing. They correctly assess business conditions and economic circumstances and take deeply entrenched positions that, in secular bull markets, return them profits beyond the hope of swing traders and midterm traders. Perhaps in some cases they even use Dow Theory. Whatever they use, they are not chased from the market, except by true changes in the major trend.

Investing on this time scale has never been easy—except for the well-capitalized mature and patient investor. Using Magee's Basing Points Procedure, it is now possible for the general investor to invest on the Dow Theory (or longer) time scale. To demonstrate the power of this procedure, I undertook a number of studies. The first and most important of these was a study of the Dow Industrials since 1900 using Dow Theory. By studying the Industrials, we have an excellent benchmark in the performance of Dow Theory over that time.

The fractal nature of the market

A fact that all traders know in their bones was enunciated by the polymath, Benoit Mandelbrot, who stated market price behavior is *fractal*. Fractal literally means *self-similar at all scales*. In other words, a two-minute bar chart exhibits the same kind of formations and characteristics as a daily chart, and so does a weekly chart. If you were presented a chart and told to determine the time scale, you would be unable to answer from the data alone. When you read about moving average systems in [Chapter 36](#), you will see—as you probably know already—that a 10-day moving average system trades 10 times as much as a 200-day moving average system. The closer you are to the market, the more prone you are to be led astray by noise. This is one reason day traders are so seldom successful—noise and random price activity make for difficult data to analyze. Important traders of my acquaintance trade on weekly data: in other words, they trade using one bar to represent a week of market activity. Not surprisingly, they trade infrequently compared with daily bar traders.

Considering these facts, I constructed a Basing Points Procedure using weekly bars to test the method. Instead of using “three-days-away” data to determine Basing Points, I used “three-bars-away” data. I took all the Industrials data and back studied it to see what the performance would have been using Magee’s procedure. The results are impressive; not eye-popping in terms of profits but sufficient. Furthermore, when considering operating characteristics overall, especially in ease of operation, the Magee method wins hands down.

The results of using Magee’s simple-as-pie method are superior to the results obtained by using the complex and often obtuse Dow Theory. Later in this chapter, I will summarize the results of the study and illustrate the tables.

- Profits produced by the Magee Procedure are superior to those produced by the Dow Theory: \$1,147,486.52 as opposed to \$795,592.01.
- Profits produced by Variant 2 of the Magee Procedure were \$2,982,577.83.
- Compound Annual Growth Rates (CAGR) were also similar: 7.9% (Variant 1) versus 7.87% and 8.37% for Variant 2.
- Risk profiles were also quite similar: average drawdown for Dow Theory was 13.78% and for the Magee Procedure was 16%. Maximum drawdown was 25.3% for Dow Theory and 30% for the Magee Procedure.
- Also pertinent to risk, considering long-side trades only, the Dow Theory was out of the market 36% of the time and the Magee Procedure 35%. This is a little remarked fact about Dow Theory—and unknown before this about Magee’s Procedure. This is a radically important fact; it means each procedure is risk-free more than a third of the time. Calculating the out-of-market returns is such a hairy process, it was not undertaken.
- As a result of differences in drawdowns and stop methods, Magee’s Procedure is operationally superior to Dow Theory. Since 1900, the Dow Theory has made 42 trades, the Magee Procedure has made 25. Considering the similarity of risk and profit characteristics, a system that trades less is preferable—less cost, less slippage, fewer chances to lose market position. This is to say, better control of the vigorish.

In short, the Magee Basing Points Procedure represents the best alternative to the Dow Theory for the true long-term investor. It can be used on weekly bars, in which case its full long-term power is evidenced. It also can be used on daily bars for a more sensitive approach.

The Basing Points Procedure may be operated in two ways, which I call Variant 1 and Variant 2. Variant 1 sets stops based on wave lows. Variant 2, in addition to wave lows, uses new wave highs (see [Chapter 28](#)). [Table 5.1](#) denotes trades for the Basing Points Procedure, Variant 1. [Table 5.2](#) denotes trades for the Basing Points Procedure, Variant 2. Keys to trades are shown in [Figures 5.2](#) and [5.3](#). Readers, and investors in general, have every right to be skeptical of academic studies. Every morning, the mailbox is full of “can’t fail” “get-rich-quick” systems being sold by Wall Street hucksters who always show mouth-watering profits. Yet these are always paper studies. By contrast, the Magee Basing Points Procedure has been in operation in the market for some years, and its effectiveness has been demonstrated. It exited, and shorted, the market in January 2008 and remained short until March 2009. In 2011, the Procedure exited longs and went short in late July before the Greek debt crisis. Letters written in real time during these events are in the <http://www.edwards-magee.com> archives and are available for audit. Charts made at the time follow here. (See [Figures 5.2](#) and [5.3](#). [Figure 5.1](#) shows a detailed chart of the analysis of the top of the 2007 market and the short that resulted in early 2008.)

Table 5.1 Trades Made by the Magee Basing Points Procedure, Variant 1

Date	Signal	Wave High	Wave Low	Stop Price	P/L Long	%	Accum Lng	Risk pts	Risk %	Duration Long	Duration Short
9/24/1900	Long		53.00	50.35			143.1				
6/17/1901		78.30								371	
9/30/1901	Short			64.03	11.03	20.81	172.88	14.27	18.22		
11/2/1903			42.20								
7/11/1904	Long			52.02							1015
1/15/1906		103.00									
8/5/1907	Short			76.76	24.75	47.57	255.13	26.24	25.48	1120	
1/11/1907			53.00								
3/23/1908	Long			67.77							231
9/27/1909		100.50									
1/31/2010	Short			91.11	23.34	34.43	342.97	9.39	9.34	679	
9/25/1911			72.90								
4/22/1912	Long			88.58							812
9/30/1912		94.20									
12/9/1912	Short			85.88	-2.70	-3.05	332.52	8.32	8.83	231	
12/21/1914			53.20								
3/29/1915	Long			60.26							840
11/13/1916		110.13									
8/27/1917	Short			84.65	24.40	40.49	467.14	25.48	23.14	882	
12/17/1917			65.90								
8/19/1918	Long			84.56							357
11/3/1919		119.60									
8/9/1920	Short			83.72	-0.84	-0.99	462.50	35.88	30.00	721	
8/22/1921			63.90								
10/24/1921	Long			72.10							441
3/19/1923		105.40									
7/23/1923	Short			87.40	15.30	21.22	560.65	18.00	17.08	637	
10/22/1923			85.76								
1/21/1924	Long			96.51							182
9/2/1929		386.10									
10/21/1929	Short			319.30	222.79	230.84	1854.86	66.80	17.30	2100	
7/4/1932			40.60								
4/24/1933	Long			70.97							1281
3/8/1937		195.60									
9/6/1937	Short			166.54	95.57	134.67	4352.85	29.06	14.86	1596	
3/28/1938			97.50								
7/18/1938	Long			136.89							315
9/11/1939		157.80									
5/13/1940	Short			135.95	-0.94	-0.68	4323.06	21.85	13.85	665	
4/27/1942			92.70								
7/6/1942	Long			105.99							784
5/27/1946		213.4									
9/16/1946	Short			172.43	66.44	62.69	7033.17	40.97	19.20	1533	
6/13/1949			160.6								
10/24/1949	Long			184.27							1134
4/9/1956		524.4									
9/23/1957	Short			468.26	283.99	154.12	17872.73	56.14	10.71	2891	
10/21/1957			416.2								

(Continued)

Table 5.1 (Continued) Trades Made by the Magee Basing Points Procedure, Variant 1

Date	Signal	Wave High	Wave Low	Stop Price	P/L Long	%	Accum Lng	Risk pts	Risk %	Duration Long	Duration Short
6/23/1958	Long			465.77							273
1/4/1960		688.2									
9/26/1960	Short			582.64	116.87	25.09	22357.51	105.56	15.34	826	
10/24/1960			564.2								
4/3/1961	Long			664.66							189
11/13/1961		741.3									
5/7/1962	Short			654.46	-10.20	-1.53	22014.44	86.84	11.71	399	
6/25/1962			524.6								
12/31/1962	Long			640.66							
1/17/1966		1000.6									238
5/9/1966	Short			878.18	237.52	37.07	30176.13	122.42	12.23	1225	
10/10/1966			735.7								
10/14/1968	Long			937.71							889
12/2/1968		994.7									
6/9/1969	Short			895.4	-42.31	-4.51	28814.51	99.30	9.98	238	
5/25/1970			627.5								
1/11/1971	Long			827.40							581
1/8/1973		1067.2									
5/14/1973	Short			871.25	43.85	5.30	30341.63	195.95	18.36	854	
12/2/1974			572.1								
12/10/1975	Long			713.58							940
9/20/1976		1026.3									
5/23/1977	Short			904.12	190.54	26.70	38443.24	122.18	11.90	530	
2/27/1978			742.13								
8/14/1978	Long			875.60							448
9/4/1978		907.73									
3/24/1980	Short			780.15	-95.45	-10.90	34252.39	127.58	14.05	588	
4/21/1980			759.13								
8/4/1980	Long			930.96							133
3/30/1981		1030.98									
8/3/1981	Short			877.8	-53.16	-5.71	32296.66	153.18	14.86	364	
8/9/1982			769.98								
10/4/1982	Long			902.82							427
8/24/1987		2746.7									
10/19/1987	Short			2071.51	1,168.69	129.45	74104.67	675.19	24.58	1841	
8/24/1987			1616.2								
1/23/1989	Long			2234.53							
7/20/1998		9367.94									462
8/24/1998	Short			8141.86	5,907.33	264.37	270011.56	1,226.08	13.09	3500	
7/20/1998			7402.61								
3/8/1999	Long			9015.28							196
1/10/2000		11750.28									
2/21/2000	Short			9889.28	874.00	9.69	296188.21	1,861.00	15.84	350	
10/7/2002			7197.49								
9/1/2003	Long			9314.67							1288
10/8/2007		14198.1									
1/7/2008	Short			12503.04	3,188.37	34.23	397572.06	1,695.06	11.94	1589	
3/2/2009			6469.95								

(Continued)

Table 5.1 (Continued) Trades Made by the Magee Basing Points Procedure, Variant 1

Date	Signal	Wave High	Wave Low	Stop Price	P/L Long	%	Accum Lng	Risk pts	Risk %	Duration Long	Duration Short
5/4/2009	Long	8564.52	484								
12/31/2009		10428.05									
12/29/2017	Mark to market 12/29/17	16928.03	24719.22	16154.70	749914.46	188.62	1147486.52	14291.17	137.05%	3161	

Table 5.2 Trades Made by the Magee Basing Points Procedure, Variant 2

Date	Signal	Stop	Profit	%	Accumulated Profit	Duration Long	Duration Short
9/25/1900	Buy				143.10		
6/18/1901						371	
10/1/1901	Sell	64.03	11.03	20.81	172.88		
11/3/1903							
7/12/1904	Buy	52.02					1015
1/16/1906							
8/6/1907	Sell	76.76	24.75	47.57	255.13	1120	
1/12/1907							
3/24/1908	Buy	67.77					231
9/28/1909							
2/1/1910	Sell	91.11	23.34	34.43	342.97	679	
9/26/1911							
4/23/1912	Buy	88.58					812
10/1/1912							
12/10/1912	Sell	85.88	-2.70	-3.05	332.52	231	
12/22/1914							
3/30/1915	Buy	60.26					840
11/14/1916							
8/28/1917	Sell	84.65	24.40	40.49	467.14	882	
12/18/1917							
8/20/1918	Buy	84.56					357
11/4/1919							
8/10/1920	Sell	83.72	-0.84	-0.99	462.50	721	
8/23/1921							
10/25/1921	Buy	72.10					441
3/20/1923							
7/24/1923	Sell	87.40	15.30	21.22	560.65	637	
10/23/1923							
1/22/1924	Buy	96.51					182
9/3/1929							
10/22/1929	Sell	337.92	241.41	250.14	1963.03	2100	
7/5/1932							

(Continued)

Table 5.2 (Continued) Trades Made by the Magee Basing Points Procedure, Variant 2

Date	Signal	Stop	Profit	%	Accumulated Profit	Duration Long	Duration Short
4/25/1933	Buy	70.97					1281
3/9/1937							
9/7/1937	Sell	166.54	95.57	134.67	4606.69	1596	
3/29/1938							
7/19/1938	Buy	136.89					315
9/12/1939							
5/14/1940	Sell	135.95	-0.94	-0.68	4575.16	665	
4/28/1942							
7/7/1942	Buy	105.99					784
5/28/1946							
9/17/1946	Sell	172.43	66.44	62.69	7443.31	1533	
6/14/1949							
10/25/1949	Buy	184.27					1134
4/10/1956							
9/24/1957	Sell	468.26	283.99	154.12	18914.98	2891	
10/21/1957							
6/24/1958	Buy	465.77					273
1/5/1960							
9/27/1960	Sell	582.64	116.87	25.09	23661.29	826	
10/25/1960							
4/4/1961	Buy	664.66					189
11/14/1961							
5/8/1962	Sell	654.46	-10.20	-1.53	23298.21	399	
6/26/1962							
1/1/1962	Buy	640.66					
1/18/1966							238
5/10/1966	Sell	878.18	237.52	37.07	31935.85	1225	
10/11/1966							
10/15/1968	Buy	937.71					889
12/3/1968							
6/9/1969	Sell	895.40	-42.31	-4.51	30494.83	238	
5/26/1970							
1/12/1971	Buy	827.40					581
1/9/1973							
5/15/1973	Sell	871.25	43.85	5.30	32111.01	854	
12/3/1974							
12/11/1975	Buy	713.58					940
9/21/1976							
5/24/1977	Sell	904.12	190.54	26.70	40685.06	530	
2/28/1978							
8/15/1978	Buy	875.60					448
9/5/1978							
3/25/1980	Sell	780.15	-95.45	-10.90	36249.82	588	
4/22/1980							

(Continued)

Table 5.2 (Continued) Trades Made by the Magee Basing Points Procedure, Variant 2

Date	Signal	Stop	Profit	%	Accumulated Profit	Duration Long	Duration Short
8/5/1980	Buy	930.96					133
3/31/1981							
8/4/1981	Sell	877.80	-53.16	-5.71	34180.04	364	
8/10/1982							
10/5/1982	Buy	902.82					427
8/25/1987							
10/20/1987	Sell	2458.46	1555.64	172.31	93075.78	1841	
8/25/1987							
1/24/1989	Buy	2234.53					
7/21/1998							462
8/25/1998	Sell	8141.86	5907.33	264.37	339135.65	3500	
7/21/1998							
3/9/1999	Buy	9015.28					196
9/21/1999							
9/21/1999	Sell	10470.08	1454.80	16.14	393862.09	196	
1/3/2000							
10/15/2002	Buy	8138.30					1120
10/1/2002							
1/28/2003	Sell	7984.95	-153.35	-1.88	386440.54	105	
10/8/2006							
3/18/2003	Buy	8220.90					49
5/11/2004	Sell	9966.41	1745.51	21.23	468491.88	420	
2/28/2005	Buy	10887.90					
7/30/2007	Sell	13110.42	2222.52	20.41	564123.97	882	
10/1/2007							
3/23/2009	Buy	7411.89					
3/2//2009							602
12/29/2017	Mark to Market	24719.22	17307.33	233.51	1881396.57	3262	

This study and the use of Magee's Basing Points Procedure to replace Dow Theory is explained in exquisite detail in the book *Sacred Chickens, the Holy Grail and Dow Theory* (available at <http://www.amazon.com>).



Figure 5.1 How the 2008 top in the Industrials was managed with Basing Points.

Certainly, one of the most interesting charts of the last 20 years. Here we can see the stairstops rising as higher wave lows are made. Moreover, one—or two—of those instances of surprising serendipity occurs. The Basing Point stop is quite close to a stop that would have been calculated from the neckline of the head-and-shoulders formation. The very long-term trendline from 2003 intersects prices very near the Basing Point calculated stop, calling to mind the “rule of multiple techniques,” which states any conclusion arrived at by multiple techniques is much more probable than that using only one method. This Basing Points system—or method, or what-have-you—remained short until March 2009.

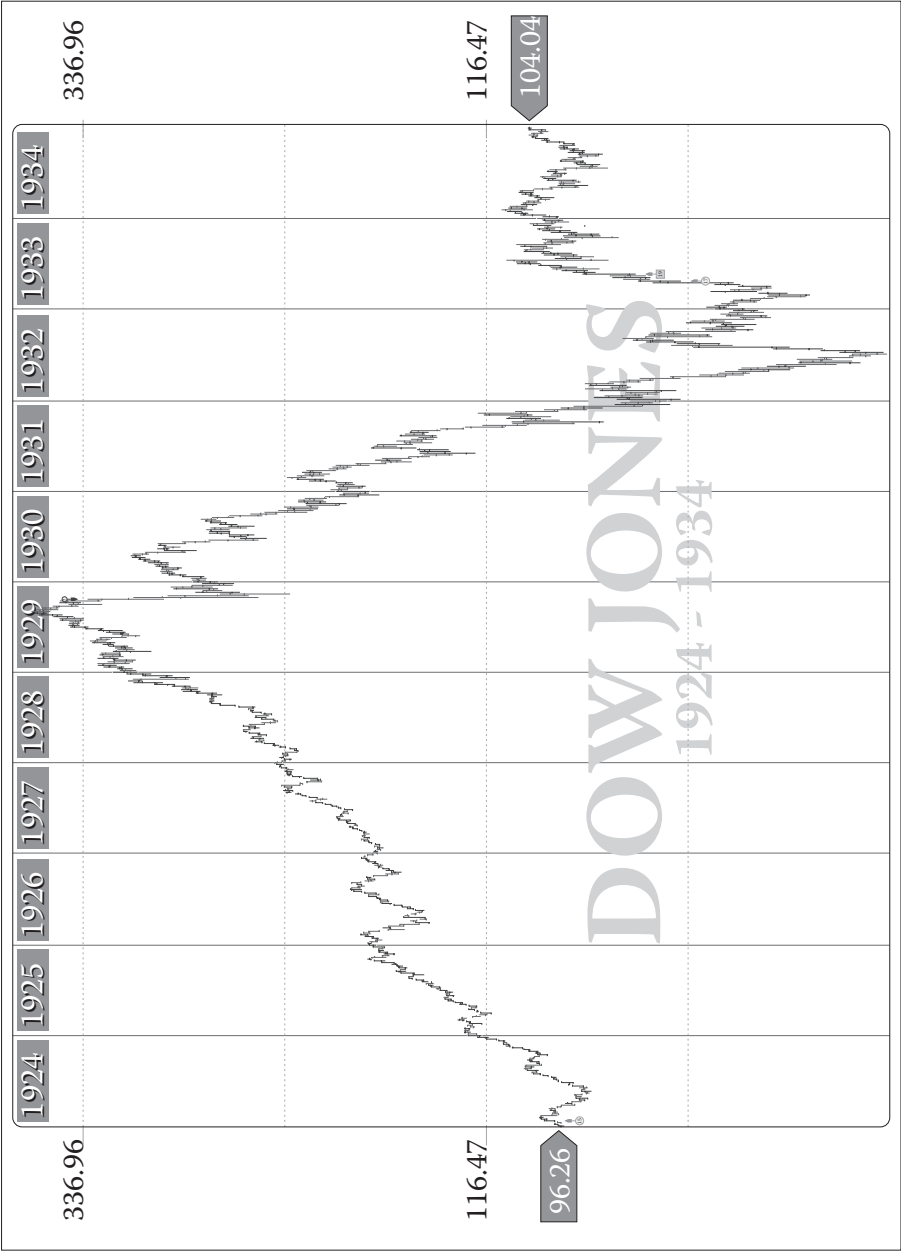


Figure 5.2 The Dow-Jones Industrials 1924–1934. This is a period of the chart covered in [Figure 5.3](#).

chapter six

Important Reversal Patterns

In our discussion of certain deficiencies in the Dow Theory from the point of view of the practical trader, we mentioned the fact that it did not tell us what specific stocks to trade in. (EN9: *Obviously, no longer a problem as the investor may buy the DIA and trade the Average like a stock.*) A conservative and wealthy investor, more interested in safety than maximum profit, can solve this problem by making up a comprehensive and thoroughly diversified list of sound, well-seasoned “blue chip” issues and handing his broker an order to buy the lot when the Dow Theory signals a Bull Trend. Some of his selections will do better than others; some may “go sour,” but wide diversification will ensure he gets a fair Average result. Better results should be obtained if we can find a way to select for purchase the most favorably situated issues at any given time and can manage to sell them promptly and switch to others whenever the prospects for the first have been fully discounted.

There is the possibility, too, of increasing our gains if we can, at times, buy with safety earlier in an uptrend than the Dow theorist does, and sell before the market has reacted far enough to give a Dow Bear Signal.

We mentioned also the fact that the Dow Theory is of little or no assistance in trading on the Intermediate Trends. There is obviously more money to be made if we can get the benefit of each up move without having to write off some of our profits in each reaction. Or, if we can profit both ways by trading on both the “long side” and “short side” of the market.

Finally, although all stocks tend to move with “the market” as typified in the Averages, there are, in fact, wide variations in the price paths of individual issues. An average, after all, is just that, a device for expressing in one figure a diversity of other figures. A Primary Bull Market ended in the Dow–Jones Industrial Average on May 29, 1946, but United Airlines registered its highest price in December 1945; General Motors saw its peak in January 1946; Goodyear in April, DuPont in June, and Schenley in August. Is there a way of capitalizing on these divergences?

Technical analysis of the charts of individual stocks definitely answers the first and most important of these four problems: the matter of selection. It frequently, but not always, gives us a running start on the Dow Theory; it also, in large part, takes care of the question of the Intermediate Trend, although there are certain reservations as to policy and risk in connection with both these points that will be taken up in due course. Finally, careful technical analysis should, in nearly every case, get us out of a stock that “tops out” ahead of the Averages long before it has suffered any considerable decline, often in time to transfer funds to other issues that have yet to complete their advances.

Just as the Averages constantly discount all known and foreseeable factors affecting the future of security prices in general, the market action of an individual issue reflects all the factors affecting its individual future. Among these factors, and expressed in its chart, are the general market conditions that influence all stocks to a greater or lesser degree, as well as the particular conditions applying to the particular stock, including the operations of “insiders.”

Let us assume right from the start that you, the reader, are not a member of that mysterious inner circle known to the boardrooms as “the insiders.” Such a group—genuinely entitled to

be called insiders, thoroughly informed on every fact, figure, and development that might determine the fortunes of a certain corporation—may exist from time to time and may influence the market price of its stock (*EN9: and wind up in prison*). But it is fairly certain that there are not nearly so many “insiders” as the amateur trader supposes and that they do not cause one-tenth of the market movements for which the public blames them. It is even more certain that insiders can be wrong; they would, in fact, be the first to admit it. Frequently, their plans are upset by some development that they could not foresee or by some blind force that puts to scorn all expert estimates of value. Any success they have, however, can be accomplished only by buying and selling on the floor of the Exchange. [*EN9: No longer strictly true. Insiders sold stock to their companies in the tulip (dot.com) bubble, which went unreported publicly for up to a year. Still, only an isolated problem.*] They can do neither without altering the delicate poise of supply and demand that governs prices. Whatever they do is sooner or later reflected on the charts where you, the “outsider,” can detect it, or at least detect the way in which the supply–demand equation is being affected by insiders’ operations, plus all other prevailing market factors. So, you do not need to be an insider to ride with them frequently.

Important Reversal Patterns

Stock prices move in trends. Some of those trends are straight, some are curved; some are brief and some are long-continued; some are irregular or poorly defined and others are amazingly regular or “normal,” produced in a series of action and reaction waves of great uniformity. Sooner or later, these trends change direction; they may reverse (as from up to down), or they may be interrupted by some sort of sideways movement and then, after a time, proceed again in their former direction.

In most cases, when a price trend is in the process of reversal, either from up to down or from down to up, a characteristic area or pattern takes shape on the chart, which becomes recognizable as a Reversal Formation. Some of these chart pictures are built and completed quickly, whereas others may require several weeks to reach a stage at which one can surely say a Reversal of Trend is definitely indicated. Speaking in broad generalities, the greater the Reversal Area—the wider the price fluctuations within it, the longer it takes to build, and the more shares transferred during its construction—the more important its implications. Thus, roughly speaking, a big Reversal Formation suggests a big move to follow and a small pattern, a small move. Needless to say, the first and most important task of the technical chart analyst is to learn to know the important Reversal Formations and to judge what they may signify in terms of trading opportunities.

There is one recognized Reversal Pattern that appears and is completed within a single day’s trading, and is, in consequence, named the “One-Day Reversal.” At times, it has great significance—such as calling a halt, at least temporarily, to any up or down move—but in its ordinary manifestations, it does not imply much of an immediate move in the opposite direction. It is a useful pattern, and we shall have more to say about it later, but the price formations from which extensive new trends proceed take time to build. One does not bring instantly to a stop a heavy car moving at 70 miles an hour and, all within the same split second, turn it around and get it moving back down the road in the opposite direction at 70 miles an hour.

Time required to reverse a trend

We do not need to lean on a racing automobile analogy to explain why it takes time (and volume and price action) to produce an important Trend Reversal. The logic of it is plain

enough if we take but a moment to examine it. We can do so most easily by describing what might have (and, doubtless, many times has) happened in specific terms. Suppose a certain well-informed and well-financed coterie (*EN9: A congerie of mutual funds, for example*) decides the shares of a certain company, now selling around 40, are cheap; that this company's affairs are progressing so satisfactorily that, before long, it will attract the attention of many investors; and that its stock will be in demand at much higher levels, perhaps at 60 or 65. Our group realizes if they manage their market operations skillfully, if nothing unforeseen intervenes to upset their calculations, they can "take" 20 points out of the situation. So they proceed to buy in all offerings, going about this business as quietly as possible, until they have accumulated their line, which may run to several thousand shares and represent practically all of the current floating supply of the issue. Then they wait. Professionals become suspicious and the rumor circulates that there is "something doing in PDQ," or other canny bargain hunters discover the company's bright prospects, or chart analysts detect the signs of accumulation in the stock's action. Buyers now find the stock is scarce; there are few offerings on the books, and they have to raise their bids to get it—an advance starts.

The up-move gathers momentum as more and more traders are attracted by rising prices. It is helped along by the good reports (higher earnings, increased dividend, etc.), which our group knew were to be expected. Eventually, prices approach the level at which they had planned to take profits. But this operation, the distribution of their holdings may require even more patient and skillful handling than did the accumulation. Suppose they have 20,000 shares to unload; they cannot throw all of the shares on the market at once—doing so would defeat their own ends immediately and, perhaps, permanently. They must feed their line out little by little, trying to avoid attention, feeling their way along and never permitting a surplus of offerings to kill the demand. If activity in their stock has reached a level of, say, 2000 shares transferred daily, they may be able to dispose of 500 shares a day from their holdings without bringing the price down. (They will be competing, sooner or later, with others who have followed their play, bought lower down, and will be ready to take profits as soon as the advance shows signs of weakening.) So they start to sell when the rising trend appears to have attained maximum momentum, or as it nears their price objective, but well before it has reached its probable limit, and they push out their shares as rapidly as buyers will take them.

Before long—as a rule, before they have distributed their entire line—a lull in demand will occur. Perhaps prospective buyers sense the increase in supply. A reaction develops. Our group quickly ceases selling, withdraws its offers, and perhaps even buys back a few shares to support prices if they threaten to drop too far. With supply temporarily held off the market, the decline halts and the advance resumes. Our group lets it proceed this time until it carries prices into new high ground; this reassures other holders and brings in more buyers. As soon as the pot is once again merrily boiling, distribution is started anew and, if the maneuver has been well directed, completed in perhaps two or three weeks, before the second wave of demand has been exhausted.

Our group is now out of its stock with a nice profit; its 20,000 shares have passed into other hands. If they gauged the market correctly and distributed their line at a price about as high as the situation would bear, demand will have been satiated for a long time to come. Prices will probably first drift back to somewhere near the level at which they were supported on the previous dip and then rally feebly on the strength of a little new buying from traders who were waiting for just such a minor reaction, meet sales from other traders who failed to seize the opportunity to take their profits on the preceding volume Top and are now anxious to get out, and then break down into a decline of Intermediate or Major proportions.

You can see now why, under one specific set of circumstances, a Top area (a chart pattern of distribution) takes time and volume to complete. Nevertheless, it does not matter whether we have to deal with the highly organized operations of a single group of insiders or of an investment syndicate or, as is more often the case, the quite unorganized activities of all the investors variously interested in an issue—the result is pretty much the same. Distribution, which is simply Wall Street's way of expressing the process of supply overcoming demand, takes time and a change in ownership (turnover) of a large number of shares. And it is amazing to see how these patterns of distribution, which hereafter we shall find it simpler to refer to as "Tops," tend to assume certain well-defined forms. Most of the same pattern forms appear also as "Bottoms," in which manifestation they signify accumulation instead of distribution.

The Head-and-Shoulders Top Formation

If you followed closely and were able successfully to visualize how the foregoing example of distribution would appear on a chart, you saw a Head-and-Shoulders Top Formation. This is one of the more common and, by all odds, the most reliable of the Major Reversal Patterns. You probably have heard this pattern mentioned, as many traders are familiar with its name, but not so many really know it and can distinguish it from somewhat similar price developments that do not portend a real Reversal of Trend.

The typical or, if you will, the ideal, Head-and-Shoulders Top is illustrated in [Diagram 6.1](#). You can easily see how this formation got its name. It consists of the following:

- A. A strong rally, climaxing a more or less extensive advance, on which trading volume becomes very heavy, followed by a Minor Recession on which volume runs considerably lower than it did during the days of rise and at the Top. This is the "left shoulder."
- B. Another high-volume advance that reaches a higher level than the top of the left shoulder, and then another reaction on less volume that takes prices down to somewhere near the bottom level of the preceding recession, somewhat lower perhaps or somewhat higher, but, in any case, below the top of the left shoulder. This is the "Head."
- C. A third rally, but this time on decidedly less volume than accompanied the formation of either the left shoulder or the head, which fails to reach the height of the head before another decline sets in. This is the "right shoulder."
- D. Finally, decline of prices in this third recession down through a line (the "neckline") drawn across the Bottoms of the reactions between the left shoulder and head, and the head and right shoulder, respectively, and a close below that line by an amount approximately equivalent to 3% of the stock's market price. This is the "confirmation" or "breakout."

Note that each and every item cited in A, B, C, and D of [Diagram 6.1](#) is essential to a valid Head-and-Shoulders Top Formation. The lack of any one of them casts in doubt the forecasting value of the pattern. In naming them, we have left the way clear for the many variations that occur (for no two Head-and-Shoulders are exactly alike) and have included only the features that must be present if we are to depend on the pattern as signaling an important Reversal of Trend. Let us examine them in greater detail (see [Figures 6.1 through 6.12](#)).

Volume is important

First, let us consider the matter of volume. It is always to be watched as a vital part of the total picture. The chart of trading activity makes a pattern just as does the chart of price

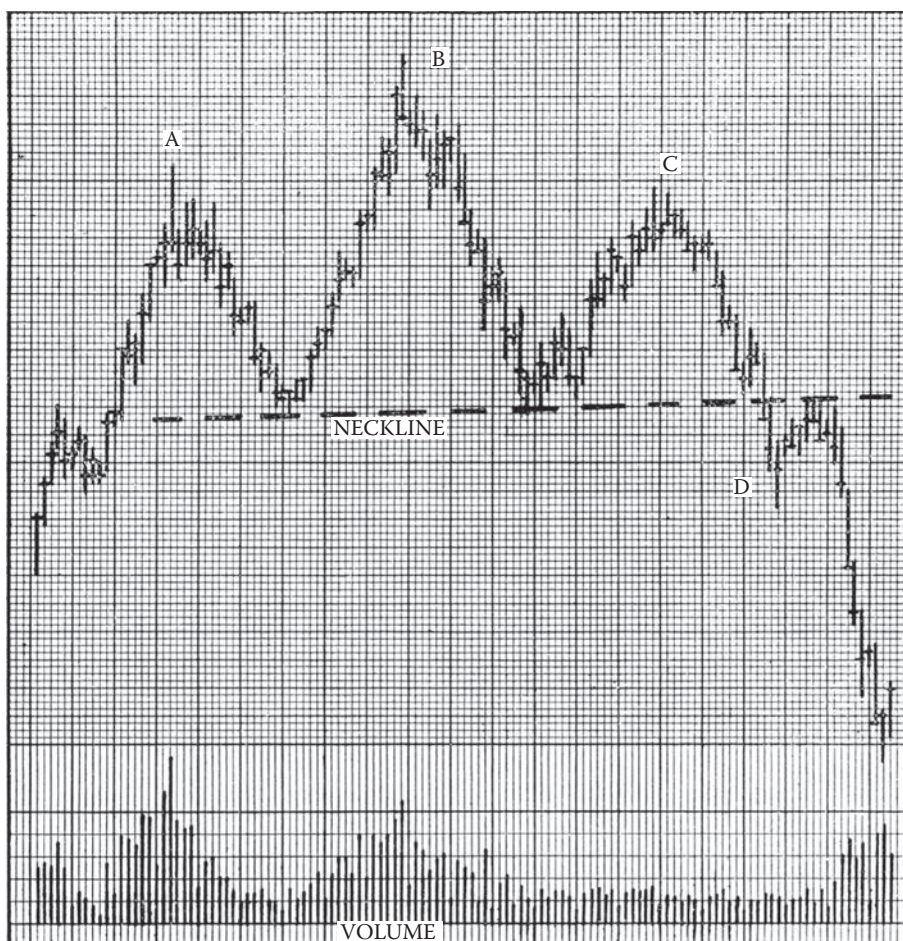


Diagram 6.1 A hypothetical daily stock chart. Price in the upper part and volume at bottom—drawn to show how an ideal Head-and-Shoulders Top Reversal Formation would develop. A, B, C, and D refer to essential features listed on the previous page.

ranges. The two go together and each must conform to the requirements of the case. But note also that volume is relative. When we speak of high volume, we mean a rate of trading notably greater than has been customary in that particular stock during that particular period under examination. The exact number of shares traded is not important, and it will not ordinarily signify anything for our purposes to compare a daily volume of, say, 6500 shares in Radio Corporation with 500 in Bohn Aluminum and Brass. The former may be very low and the latter very high as judged by the proper technical criterion, which is, in each case, the average recent activity in the same issue. In the case of a Head-and-Shoulders Top, as mentioned, high volume attends the making of the left shoulder; this means that activity on the rise to and at the top of the left shoulder should be greater than on the preceding rally waves in the same issue, followed by a Minor Recession on dwindling activity, and then a new advance on high volume. The action thus far does not differ from what we should expect of normal wave development within a continuing uptrend. In these respects, any two typical, successively higher waves in an advance may, as you can see, become the left shoulder and head, respectively, of a Head-and-Shoulders Reversal.

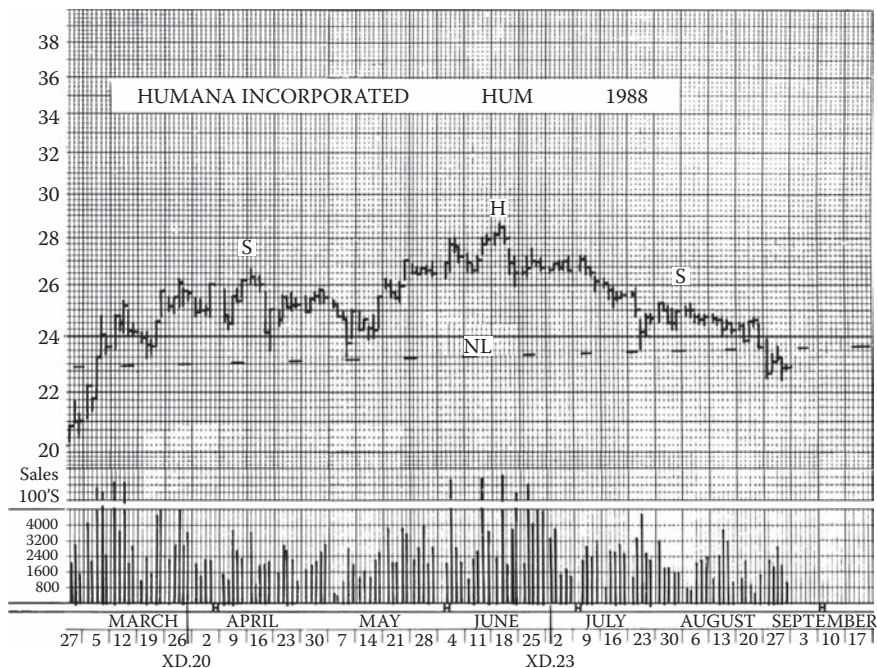


Figure 6.1 Starting in March, “HUM” formed a broad Head-and-Shoulders Top pattern on the daily chart. August’s decline penetrated the neckline by 3%, confirming the Reversal Pattern. The minimum objective for the Head-and-Shoulders Top would be 18.

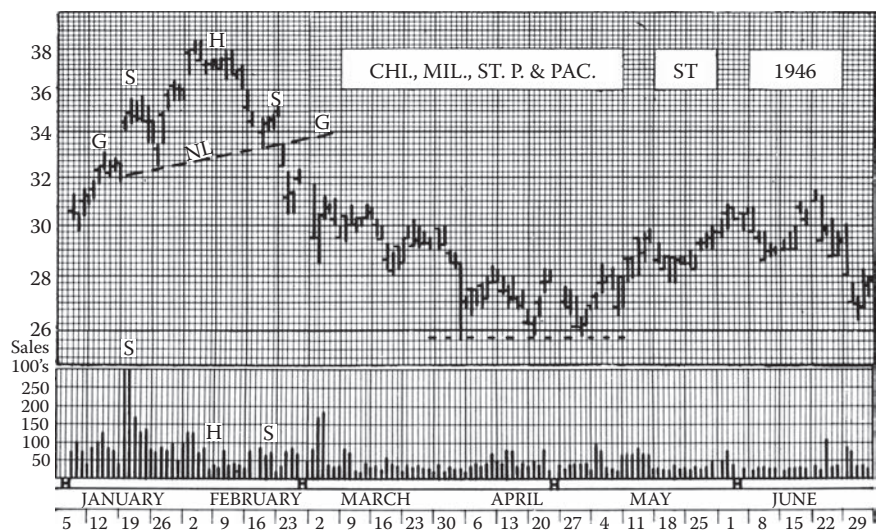


Figure 6.2 Daily chart of Chicago, Milwaukee, St. Paul, & Pacific common from January 1 to June 29, 1946. Head-and-Shoulders that topped this issue’s Primary Advance in February was unmistakable, despite the small size of shoulders (SS). Note the volume pattern. Measuring implication (see following pages) of this formation was carried out by April. Rectangular price congestion of March 30 to May 4 is a subject of [Chapter 9](#). “ST” fell to 11 1/2 in October.

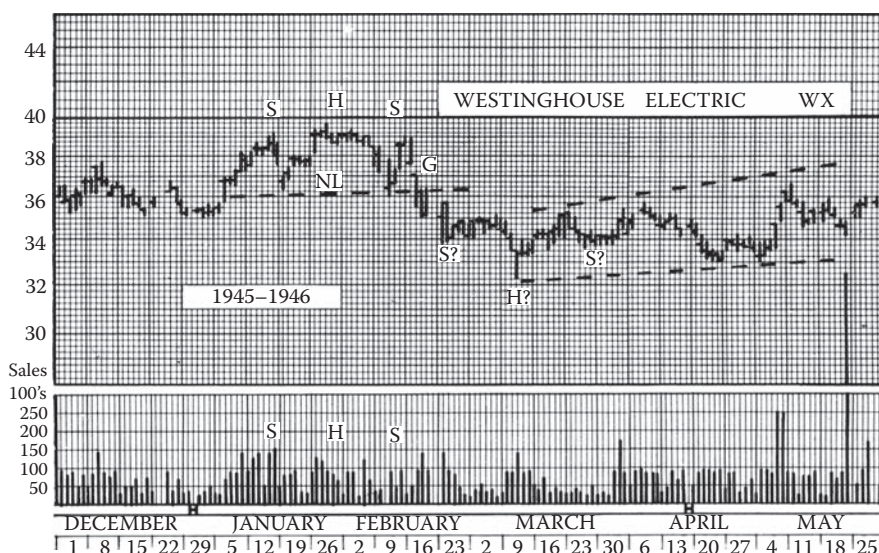


Figure 6.3 Bull market top of Westinghouse Electric in 1946 was the “wide-swinging,” powerful type of Head-and-Shoulders Pattern (S-H-S). Decline that broke neckline (NL) on February 13 produced a breakaway gap (G) discussed in [Chapter 12](#). Measuring formula (see following pages) called for initial decline to 33. The possible Bottom Head-and-Shoulders Pattern (S?-H?-S?) formed in March was never completed (see [Chapter 7](#)). Note the failure of prices to push up through the neckline of the latter at any time, despite several rally efforts in late spring while general market Averages were actually reaching new high levels. By the following November, “WX” had broken on down to 21 1/2. Study in detail the change in volume pattern after the end of January.

The first suggestion a Head-and-Shoulders is really developing may come when the volume record shows that activity accompanying the most recent Top was somewhat less than the one preceding it. If this volume disparity is conspicuous, and if it becomes evident from the way prices are receding that the second and higher rally has ended, then the chart should be tabbed with a “red” signal and further developments should be scrutinized. But such a preliminary warning does not always appear and should not be taken as conclusive when it does. Roughly estimated, about one-third of all confirmed Head-and-Shoulders Formations show more volume on the left shoulder than on the head, another third show about equal volume, and the final third show greater volume on the head than on the left shoulder.

Another warning—or, more often, the first—comes when prices drop in the course of the second reaction (i.e., from the head) below the level of the Top of the left shoulder. Such action, as we shall see later on in our specific study of Support and Resistance levels, is significant of weakness in the price structure. So far it is Minor, it may be only temporary, and it is certainly not conclusive. Nevertheless, when this occurs, put a double red tab on your chart.

Breaking the neckline

The real tip-off appears when activity fails to pick up appreciably on the third rally, the right shoulder. If the market remains dull as prices recover (at which stage you can draw a tentative “neckline” on your chart) and if, as they approach the approximate level of the left shoulder

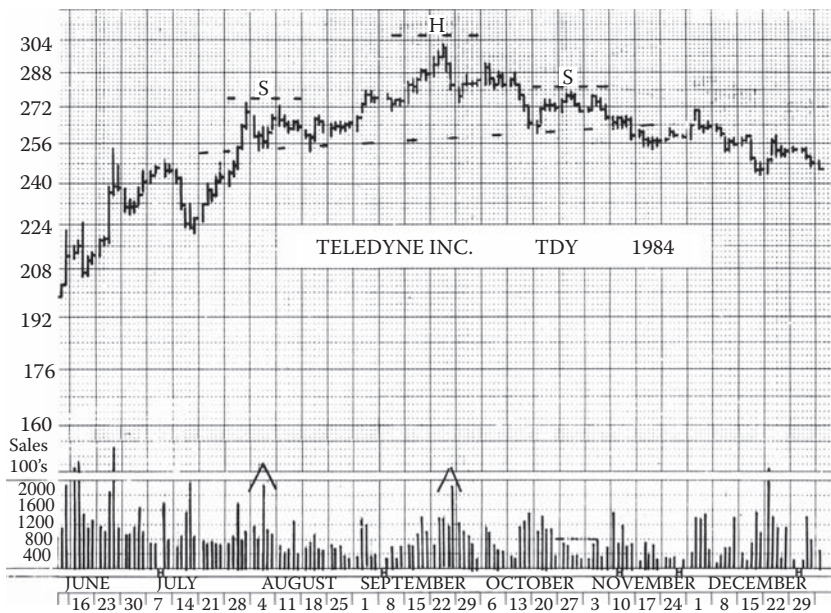


Figure 6.4 A large Head-and-Shoulders Topping Pattern evolved in “TDY” over five months, with December’s high-volume plunge through the neckline confirming the Trend Reversal. Because this was a very expensive stock, you might have considered buying the April 260 puts instead of selling “TDY” shares outright. Our measured objective in this issue was 44 points from penetration of the 264 neckline, or 220.

Top and begin to round over (volume is still relatively small), your Head-and-Shoulders Top is at least 75% completed. Although the specific application of these pattern studies in trading tactics is the province of the second part of this book, we note here that many stock traders sell or switch just as soon as they are sure a low-volume right shoulder has been completed, without waiting for the final confirmation named under D as the breaking of the neckline.

Nevertheless, the Head-and-Shoulders is not complete, and an important Reversal of Trend is not conclusively signaled until the neckline has been penetrated downside by a decisive margin. Until the neckline is broken, a certain percentage of Head-and-Shoulders developments, perhaps 20%, are “saved”—that is, prices do not go lower, but simply flounder listlessly for a period of time in the general range of the right shoulder, then eventually firm up and renew their advance.

Finally, in rare cases, a Head-and-Shoulders Top is confirmed by a decisive neckline penetration and still prices do not go down much farther. “False moves” such as this are the most difficult phenomena with which the technical analyst has to cope. Fortunately, in the case of the Head-and-Shoulders, they are extremely rare. The odds are so overwhelmingly in favor of the downtrend continuing once a Head-and-Shoulders Formation has been confirmed, it pays to believe the evidence of the chart no matter how much it may appear to be out of accord with the prevailing news or market psychology.

One thing is worth noting about Head-and-Shoulders Formations that fail completion or produce false confirmations—that is, such developments almost never occur in the early stages of a Primary Advance. A Head-and-Shoulders Formation that does not work is a warning that even though there is still some life in the situation, a genuine turn is near. The next time something in the nature of a Reversal Pattern begins to appear on the charts, it is apt to be final.

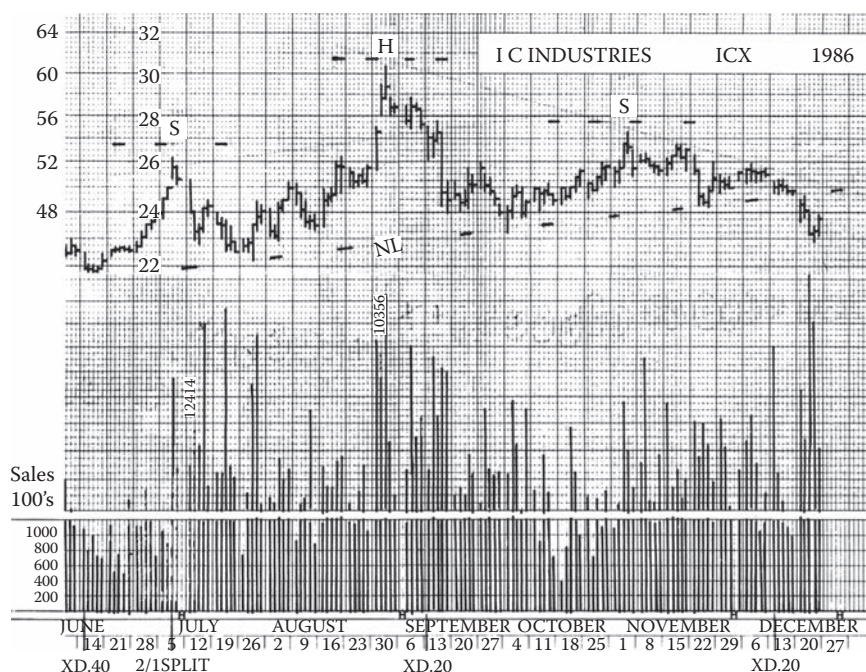


Figure 6.5 "ICX" was in a powerful uptrend for more than a decade and gains were spectacular. But the upward momentum began to fade and topping indications were evident. The August peak fulfilled the objective of the measuring flag formed during 1985. The August gap to new highs was quickly filled, indicating it was an Exhaustion Gap. The reaction back to Support, followed by a slow, relatively low-volume rally to the July high, formed a credible right shoulder. The final week's high-volume plunge through the neckline confirmed the Reversal. The minimum objective for the Head-and-Shoulders Pattern was 19 1/4, the top of the 1985 Flag. A possible alternative cover point was the Bottom of the Flag at 14 1/4.

Variations in Head-and-Shoulders Tops

There is a tendency, surprising when one thinks of all the vagaries of news and crosscurrents that may influence day-to-day trading, for Head-and-Shoulders Patterns to develop a high degree of symmetry. The neckline tends to be horizontal and the right shoulder tends to resemble the left in price confirmation (although not, of course, in volume); there is a sort of satisfying balance to the overall picture. But symmetry is not essential to a significant Head-and-Shoulders development. The neckline may slope up (from left to right) or down. The only qualification on an up-sloping neckline is that the Bottom of the recession between the head and right shoulder must form appreciably below the general level of the Top of the left shoulder. It is sometimes said that a down-sloping neckline indicates an unusually weak situation. This is so obvious that it is apt to be given even more weight than it deserves. A share of that excessive weakness, it should be noted, will have already been discharged by the time the down-sloping pattern is formed and prices have broken the neckline. The measuring formula, which we shall discuss later, applies to such situations.

Due to the tendency toward symmetry in shoulder development, some traders, as soon as the neckline has formed, will draw on their charts a line parallel to the neckline, extending from the top of the left shoulder through the head and on to the right. This furnishes a guide as to the approximate height the right shoulder rally should attain and,

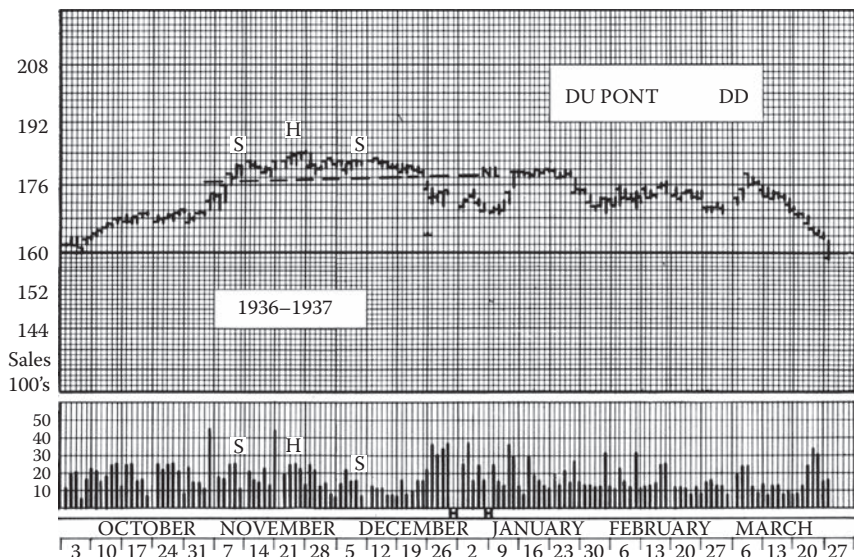


Figure 6.6 Reversal Formations, which develop in important stocks while the general market is still apparently in a strong trend, are often difficult to believe, much less act on. But they may be highly significant. DuPont topped out in 1936, four months ahead of the Averages. Despite its extended right shoulder (but note volume), Reversal implications were clear on December 19. The Pullback of January, meeting supply at the old neckline level, and the second try in March were interesting and typical of such a general market situation. Compare with [Figure 6.11](#).



Figure 6.7 Another 1937 Bull Market Top of Head-and-Shoulders Form, with only one quick Pullback (February 10). In this case, volume increased sharply on February 5 with the initial break through the neckline (NL). Measuring formula was satisfied in March. Study this picture in connection with "ED's" long-range chart ([Figure 10.4](#)) in [Chapter 10](#); turn back to it later when you come to the Support-Resistance study in [Chapter 13](#).

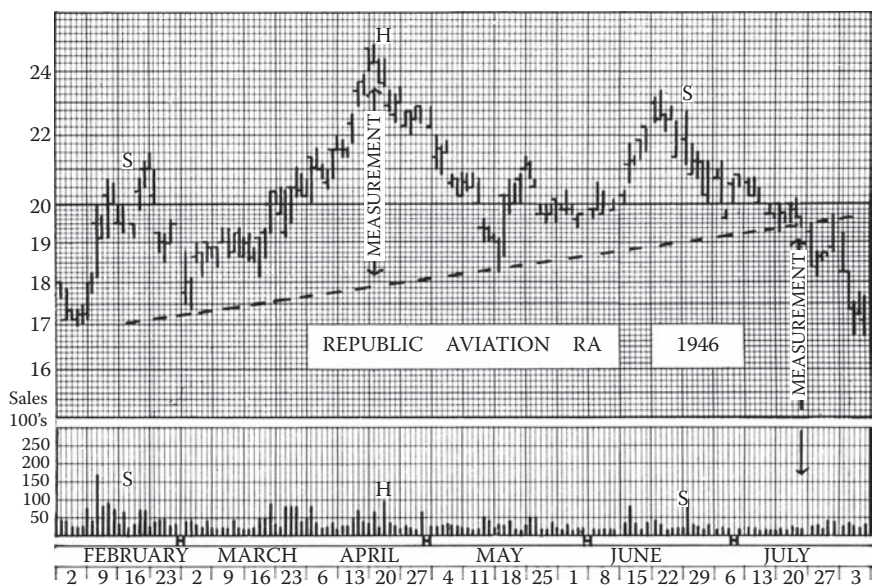


Figure 6.8 The six-month-long Head-and-Shoulders Top of Republic Aviation in 1946. Such a pattern became a possibility to be watched for when prices broke down in May below the level of the February high (first S). Refer to requirement B. Note also how the Head-and-Shoulders Measuring Formula (Chapter 7) is applied to patterns with up-slanting necklines. Minimum downside requirement here was $12\frac{1}{2}$, reached in November. The quick Pullback on July 27 gave a last good selling opportunity.

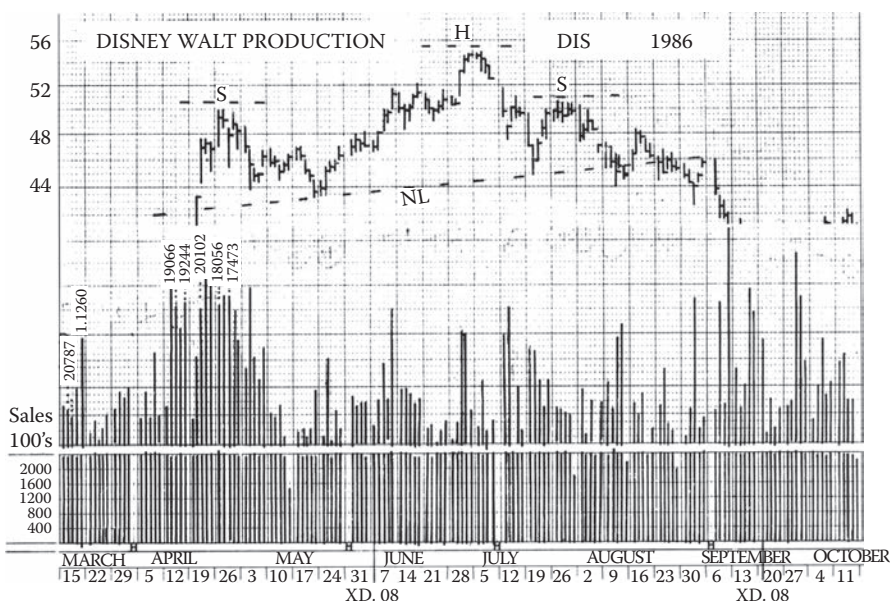


Figure 6.9 After a sharp reaction from its 1983 high, which lasted a year and pushed “DIS” back to long-term Support, the Bulls took over and sent Walt and friends on a trip to the moon. But beginning in April, the rocket began to lose power, and it looked like reentry had begun. Since the big-volume days of spring, this issue etched out a large Head-and-Shoulders Top. High-volume penetration of the neckline by 3% confirmed the Reversal.

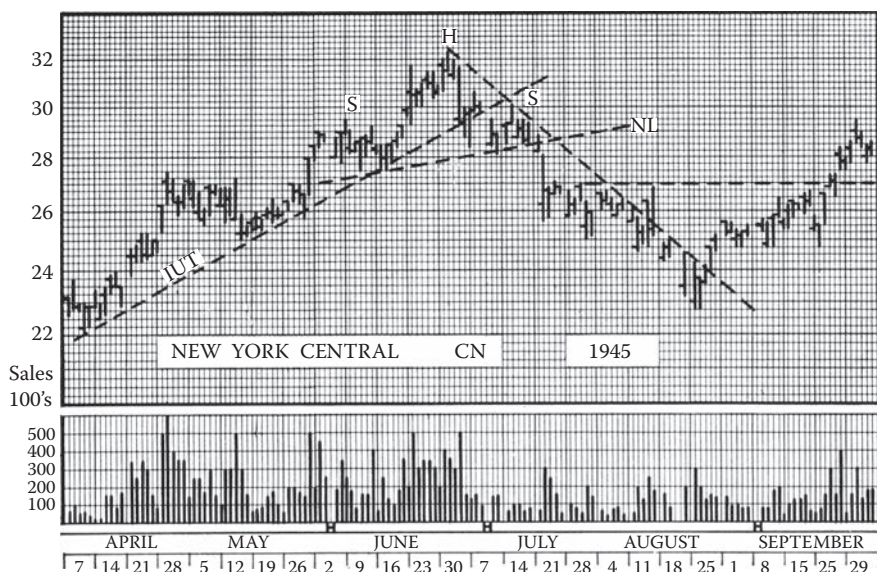


Figure 6.10 New York Central made a Head-and-Shoulders Top in June 1945. Intermediate Up Trendline (IUT) was broken by drop from head on July 5. Minimum measuring implication was carried out at 24 on August 18. Reaction ended a few days later at 22 3/4. Prices recovered to projected neckline (see September 25), dropped again to 26 7/8 in October, and then pushed up, giving “rebuy” signal (on Fan Line construction) at 30 in the first week of November. Final Bull Market High was made in January at 35 1/2. The period from August 1945 to February 1946 was difficult for technical traders in this stock. Those who sold at 26–27 in July 1945 could, however, congratulate themselves in May 1947 when “CN” hit 12.

consequently, a selling level. But you will not see very many formations as perfect and symmetrical as our ideal picture, a fact the several actual examples accompanying this chapter amply illustrate. Either shoulder may, in fact, go higher or take more time than the other. Either or both may come up nearly to the level of the head (but not equal it, or else no Head-and-Shoulders exists) or both may fall considerably short of it. If activity attending the right shoulder is abnormally dull, that shoulder is apt to be low but protracted in time. In general, there seems to be a balanced relation between the three elements of price pattern, time, and volume that is practically impossible to express in words or figures, but comes with experience to sense in its development. However, there are no laws beyond those stated in our A, B, C, and D of [Diagram 6.1](#); within those limits, look for an infinity of minor variations.

Price action following confirmation: the measuring formula

The final step, the downside penetration of the neckline, may be attended by some increase in activity, but it usually is not at first. If volume remains small for a few days as prices drift lower, a “Pullback” move frequently ensues that brings quotations up again to the neckline level (rarely through it). Normally, this is the “last gasp”; prices then turn down quickly, as a rule, and break away on a sharply augmented turnover. Whether or not a Pullback Rally will occur after the initial penetration seems often to depend on the condition of the market in general. If the whole market trend is turning down at the same time as our individual issue, which has just completed its Head-and-Shoulders, there will probably be no Pullback;

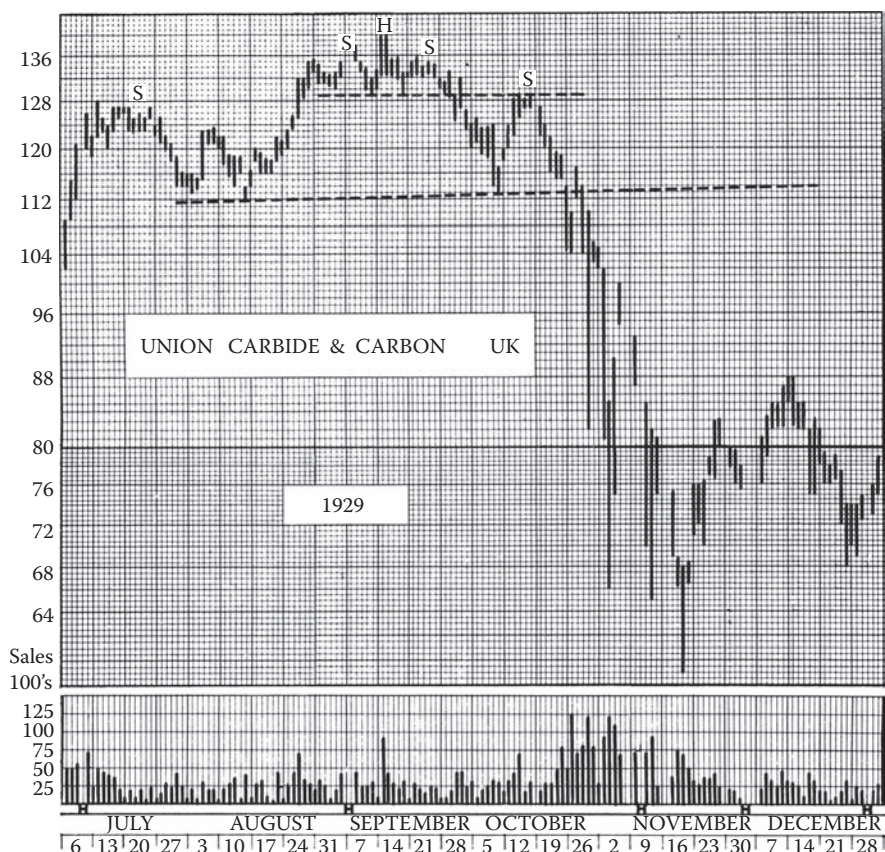


Figure 6.11 The great 1929 Bull Market Top was characterized by many impressive Head-and-Shoulders Formations, of which this is an interesting example. Note the small Head-and-Shoulders Pattern of September, which became the head of a much larger formation of the same character. The Pullback of October 9 to the upper neckline afforded a second chance to get out at 128 to those who did not sell immediately when this first line was decisively penetrated on September 28. The larger pattern “broke” on October 19, with a quick pullback on October 22. Less than a month later “UUK” had lost half its peak value. By 1932 it had fallen to 15 1/2. Although such a catastrophic decline as 1929–1932 may never come again, the moral is, nonetheless, plain: never scorn a Head-and-Shoulders Formation. Patterns such as this merge into the “multiple” types discussed in [Chapter 7](#). Although this example is selected from the 1929 portfolio, they were not at all uncommon in the mid-20th century. Several modern examples appear in our later pages.

prices instead will tend to accelerate their decline, with activity increasing as they leave the vicinity of the Top. If, on the other hand, the general market is still firm, then an attempt at a Pullback is likely. Also, the odds seem slightly to favor a Pullback if the neckline has been broken before much of a right shoulder developed, but certainly no sure rules can be laid down. In any event, the Pullback Rally is of practical interest chiefly to the trader who wants to sell the stock short, or who has sold it short and has then to decide where he should place a stop-loss order.

Now we come to one of the most interesting features of this basic Reversal Formation—the indication that it gives as to the extent (in points) of the move that is likely to follow the completion of a Head-and-Shoulders. Measure the number of points down vertically

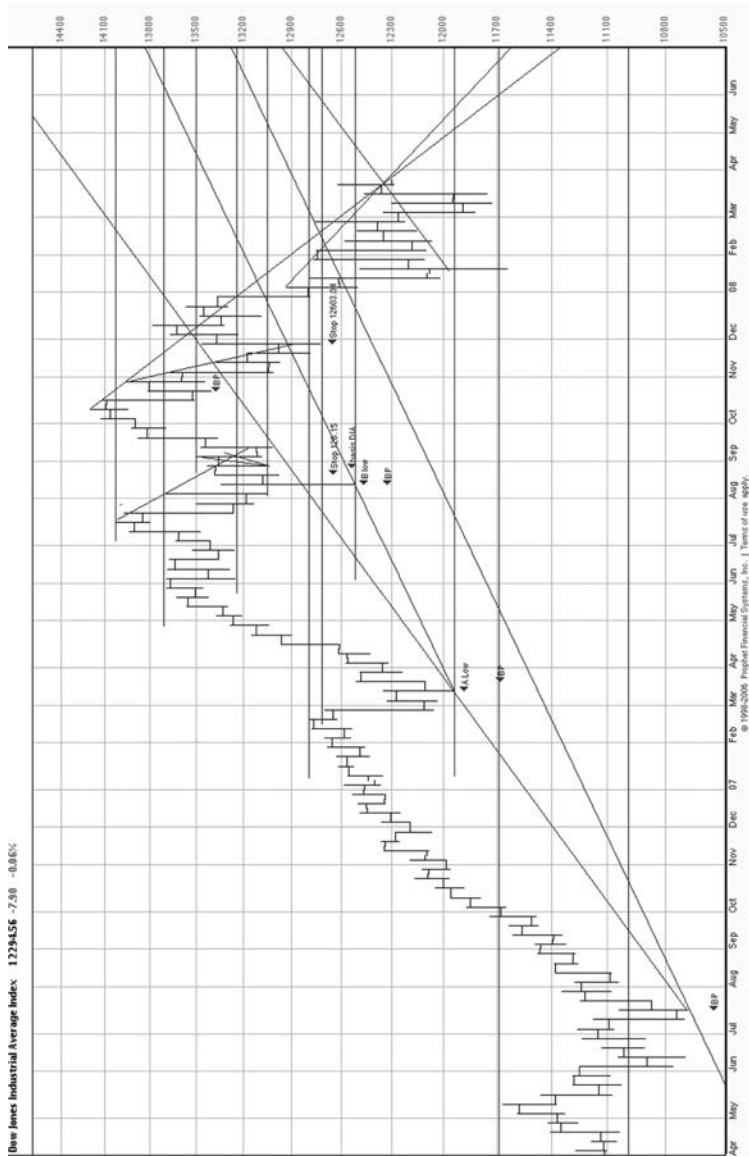


Figure 6.12 Dow Jones Industrials, Head-and-Shoulders Top 2007–2008; edwards-magee.com identified this massive Head-and-Shoulders Formation in early 2008, after having already exited the market in January 2008 and wrote the following letter. Note “A low” and “B low”; if this yearlong formation is a massive Top (perhaps a double-headed Head-and-Shoulders) and A low is its lower boundary, then a low of 9680 is predicted. If B low is the defining point, the predicted low is 10836. Remember Niels Bohr and the difficulty of forecasting? Again, it is not necessary to believe this scenario to know how to bet. The Dow is in a six-month downtrend, the last 2 1/2 months of which are sideways, with lower highs in the sidetrend. The low of 9680 is a probable minimum. Mark Hulbert says Richard Band is predicting a 16000 Dow. Watch out for low flying eggs (as in getting egg on your face). Then the Dow went to 6469.95 in the great Bush Bear Market.

from the Top of the head to the neckline as drawn in [Figure 6.4](#). Then measure the same distance down from the neckline at the point at which prices finally penetrated it following the completion of the right shoulder. The price level thus marked is the minimum probable objective of the decline.

Let us hasten to state one important qualification to the Head-and-Shoulders Measuring Formula. Refer back to our original set of specifications for a Head-and-Shoulders. Under A, we required “strong rally climaxing a more or less extensive advance.” If the up-move preceding the formation of a Reversal Area has been small, the down-move following it may—in fact, probably will—be equally small. In brief, a Reversal Pattern has to have something to reverse. So, we really have two minimums: one being the extent of the advance preceding the formation of the Head-and-Shoulders and the other derived from our measuring formula, whichever is the smaller will apply. The measuring rule is indicated on several of the examples that illustrate this chapter. You can see now why a down-sloping neckline indicates a “weaker” situation than an up-sloping neckline, and just how much weaker, as well as the fact that more than half of the minimum expected weakness has already been expended in the decline from the top of the head to the penetration of the neckline.

The maximum indications are quite another matter, for which no simple rules can be laid down. Factors that enter into this are the extent of the previous rise, the size, volume, and duration of the Head-and-Shoulders Formation, the general market Primary Trend (very important), and the distance that prices can fall before they come to an established Support Zone. Some of these are topics for later discussion.

Relation of Head-and-Shoulders to Dow Theory

Without doubt, some readers have already suspected the Head-and-Shoulders Pattern is, in a sense, just an adaptation of the principles of Dow Theory to the action of an individual stock. So it is. The decline of prices from the head to the neckline, the rally to the right shoulder, and then the ensuing decline that breaks the neckline set up a sequence of lower Tops and Bottoms analogous to those that signal a downtrend in Dow Theory. This logical relation of the Head-and-Shoulders to Dow Theory is another reason, in addition to its basic importance, frequency, and dependability, why we have placed it first in our study of Reversal Formations. But it also is more definite, gives advance warnings that are relatively easier to detect, and is quicker with its signals in the case of up-sloping necklines. Moreover, it requires no specified minimum time for any of its component moves, and no confirmation by another stock or Average.

There are Head-and-Shoulders Bottoms (*EN: An un-descriptive term for a bottom formation that I would prefer to call the “Kilroy Bottom.” See [Figure 7.4](#).*) as well as Tops, with equally important implications. The Bottom Formations will be taken up in our next chapter.



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Important Reversal Patterns: continued

Head-and-Shoulders (EN: or Kilroy) Bottoms

A formation of the Head-and-Shoulders type may develop at an important Reversal of Trend from down to up. In that case, it is called a Head-and-Shoulders Bottom, and its price pattern (as compared with a Top) is turned upside down, that is, it stands on its head. EN: *The present Editor has always been impatient with the undescriptive nature of the term "Head-and-Shoulders Bottom," and so he has renamed it the "Kilroy Bottom."* See [Figure 7.4](#). The volume pattern is somewhat the same (not turned upside down) as at a Top but with some important changes in the latter half of the formation, which we shall discuss in detail. We can lay down specifications for it in much the same words as we used for the Head-and-Shoulders Top. Here they are, with the portions that differ in principle from the Top printed in italics (see [Figures 7.1](#) through [7.25](#)):

- A. A decline, climaxing a more or less extensive downtrend, on which trading volume increases notably, followed by a Minor Recovery, on which volume runs less than it did during the days of final decline and at the Bottom. This is the "left shoulder." EN9: *Or left hand.*
- B. Another decline that carries prices below the Bottom of the left shoulder, on which activity shows some increase (as compared with the preceding recovery) *but usually does not equal the rate attained on the left-shoulder decline*, followed by another recovery that carries above the Bottom level of the left shoulder and on which activity may pick up, or at any rate *exceed that on the recovery from the left shoulder*. This is the "head." EN9: *Or nose.*
- C. A third decline on decidedly less volume than accompanied the making of either the left shoulder or head, which fails to reach the low level of the head before another rally starts. This is the "right shoulder." EN9: *Or right hand.*
- D. Finally, an advance *on which activity increases notably*, which pushes up through the neckline (EN9: *Or fenceline*) and closes above by an amount approximately equivalent to 3% of the stock's market price, *with a conspicuous burst of activity attending this penetration*. This is the "confirmation" or "breakout."

The essential difference between Top and Bottom Patterns, you can see, lies in their volume charts. Activity in Head-and-Shoulders Bottom Formation usually begins to show uptrend characteristics at the start of the head and always to a detectable degree on the rally from the head. It is even more marked on the rally from the right shoulder. *It must be present on the penetration of the neckline*, or else the breakout is not to be relied on as a decisive confirmation.

An important basic principle of techniques that is involved here merits further discussion. Wall Street has an old saying that expresses it: "It takes buying to put stocks up, but they can fall of their own weight." Thus, we trust, and regard as conclusive, any price break (by a decisive margin) down through the neckline of a Head-and-Shoulders Top

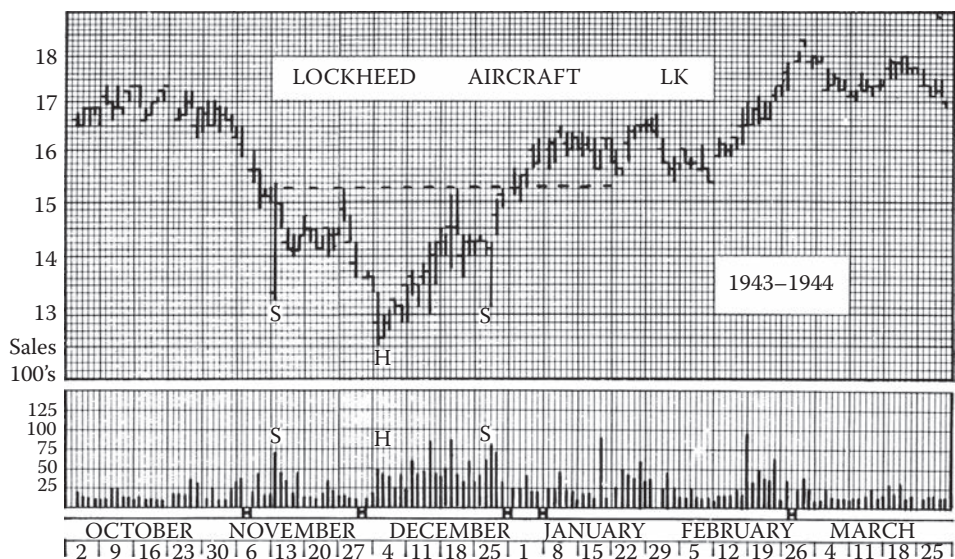


Figure 7.1 After “rounding over” in October 1943 in the last phase of a long decline from 41 in 1940, Lockheed made a conspicuous two-month Head-and-Shoulders Bottom. Note especially, on the above chart, the volume on the rally in early December and in the first week of January with reference to points B and D on the preceding pages. “LK” dropped back to 15 again in June 1944, and then ran up quickly to 23 by November, finally reaching 45 in January 1946. One advantage of logarithmically scaled charts is they expand, and thus call attention to important formations that develop at low price levels, and that would be obscured on an arithmetic scale.

even though it occurs on a light turnover, but we do not trust a breakout from a Head-and-Shoulders Bottom unless it is definitely attended by high volume. A low-volume breakout from a Bottom Pattern may only be premature, to be followed after more “work” around the Bottom levels by a genuine advance, or it may be a “false” move entirely. It pays generally to wait and see. This same distinction in volume development applies to some of the other Reversal Patterns we shall take up later in this chapter.

Other differences between Top and Bottom Head-and-Shoulders do not involve any new principles. It can be said that Bottoms are generally longer and flatter, that is, they take more time in relation to depth of pattern in points than do Tops. This is particularly true when they occur at Reversals in the Primary Trend. The overall volume at Bottoms tends to be less than at Tops, and the turns tend to be more “rounded.” In the construction of a Head-and-Shoulders Top, the activity that goes into the left shoulder usually exceeds that on any preceding rally in the entire uptrend. In a downtrend, on the other hand, there may be Panic Selling in some of the earlier phases of decline, which runs the volume chart up to a mark higher than any that is subsequently registered in the final Bottom Formation. None of these differences, however, affects our essential Head-and-Shoulders specifications.

The measuring implications of the Head-and-Shoulders Bottom are the same in all respects and are applied in the same way as with Tops. Tendency toward symmetry is again the rule, with variations as to slope of neckline, relative size of shoulders about the same as in Tops. Reactions to the neckline following the initial breakout from the Bottom type appear in about the same frequency and proportions as do the Pullback Rallies, which follow the initial breakdown from the Top type.

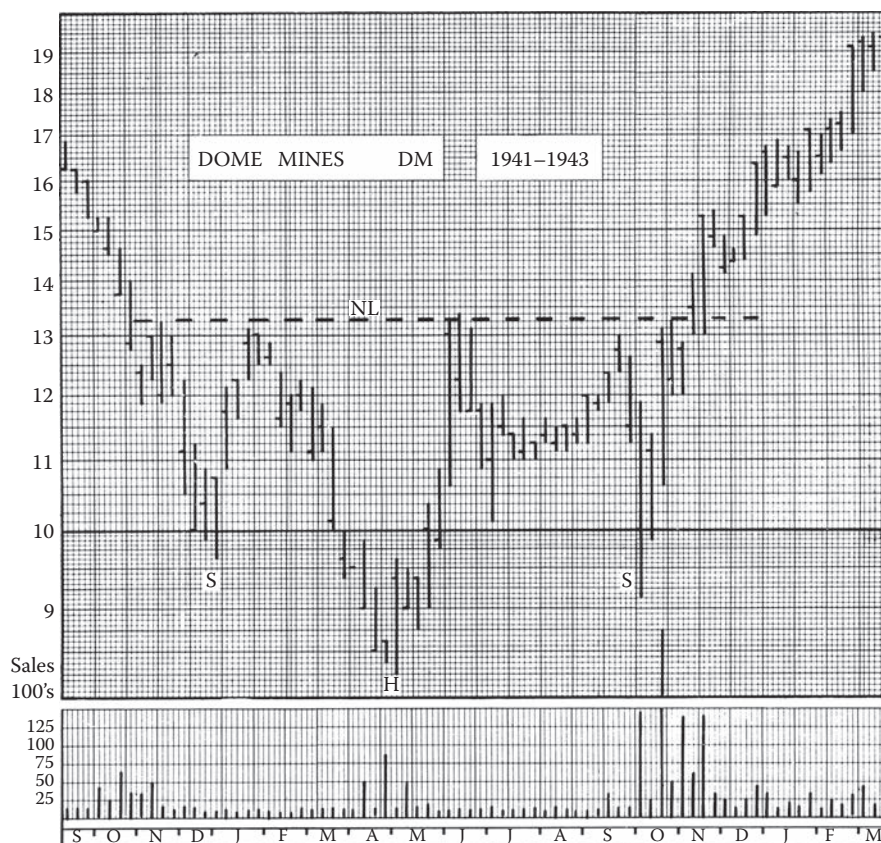


Figure 7.2 Weekly charts are particularly useful for detecting Major Bottom Reversals because Bottom Formations characteristically take longer to build than Tops. Dome Mines made a typical Head-and-Shoulders base, 13 months' long, at its Primary Trend Reversal in 1942. Note the volume pattern. (Volume detail, however, is better studied on daily charts.) Dome's powerful Head-and-Shoulders Bottom was "high" enough to be conspicuous on an arithmetic monthly chart. It reached 25 in 1944.

Multiple Head-and-Shoulders Patterns

The Head-and-Shoulders Formations we have examined up to this point have been, despite minor variations, relatively simple and clear-cut, consisting of three well-defined elements. We come now to a group of related patterns that carry much the same technical significance but have more elements and are much less clearly defined. These are the Multiple Head-and-Shoulders Tops and Bottoms, also known as Complex Formations. We need not take much of our space to define or lay down specifications for them, as they may be described quite sufficiently as Head-and-Shoulders Reversals in which either the shoulders or the head, or both, has been doubled or proliferated into several distinct waves.

Almost any combination is possible, of which only a few can be illustrated in the actual chart examples reproduced in this chapter. Formations of this type appear with fair frequency at Primary Bottoms and Tops, but more often at Bottoms than at Tops. They appear less frequently at Intermediate Reversals.

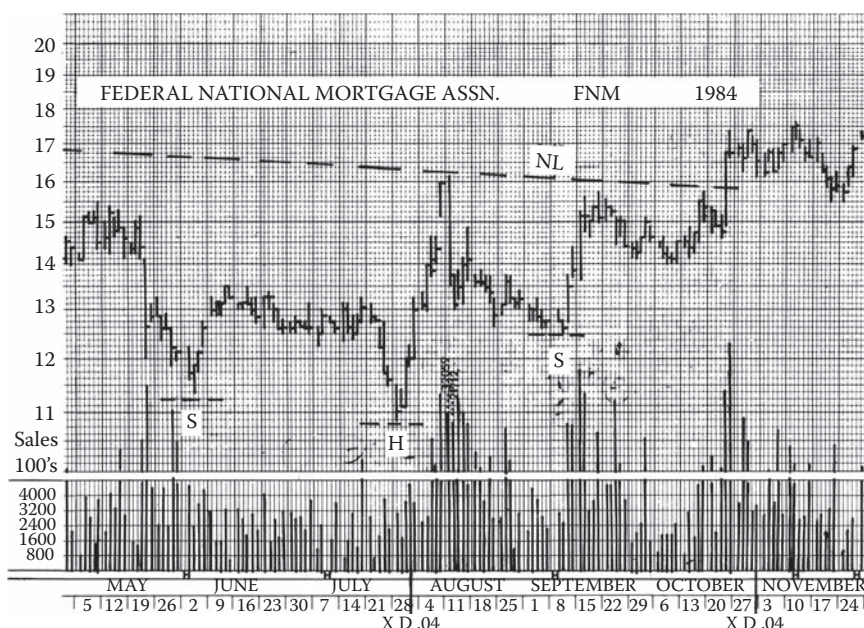


Figure 7.3 With a strong movement toward lower interest rates evident since June, the timing of the low in “FNM” is not surprising. Neither is the massive width (from March through October) of its evolving pattern, which closely matches that of the huge, complex Inverse Head-and-Shoulders Bottom in Treasury Bills (December 1984), September 25, 1984. Even the slight timing lag is appropriate.



Figure 7.4 EN: At the risk of being considered a comic (actually, a satirist), I suggest that, although the image is comical, the pattern is more descriptive of the incongruously named “Head-and-Shoulders Bottom” than the present terminology. Left hand equals left shoulder, right hand equals right shoulder, nose equals head, and neckline equals fence line, or, as easily, neckline. I am teaching all of my students to think and use these terms, which makes much more sense than the absurd “upside down Head-and-Shoulders Bottom standing on its head.” One hundred years from now, this contribution to the nomenclature will be accepted as totally descriptive and appropriate, and the term “Head-and-Shoulders Bottom” will have disappeared from the lexicon.

A common form consists of two left shoulders of approximately equal size, a single head, and then two right shoulders, again, of approximately even size and balancing the two on the left. Another is made up of two heads with two or more shoulders on either side. Still another form, of which you will usually find several good examples at any Major Market Turn, consists of double shoulders on either side of a head, which is itself composed of a small but quite distinguishable Head-and-Shoulders development.



Figure 7.5 A ragged Kilroy (or, if from the old school, a Head-and-Shoulders) Bottom that ended the Bear Market (or first phase thereof) of 2001–2002. Some seven and a half months in formation it threw a few knuckle balls and curves and looked right up to March 2003 as though it were a Bear Market rally. Once the neckline was taken out, there was no arguing with it—it was a real Bottom. It balked at the neckline for a couple of months before becoming a full Bull. Complex economic and political realities affected the markets: the terrorist attacks of September 11, 2001, which put paid to the tulipomania of the roaring 1990s and the ill-advised tax cuts of the Bush Jr. administration. Using the formula of cut taxes and increase spending to start a war, the market was sufficiently stimulated to rally exuberantly. The downtrend line is drawn here and the reader should have no trouble seeing the break of the long-term downtrend as well as the Kilroy Bottom demanded a shifting of gears from Bear to Bull.

Tendency to symmetry

We have mentioned the tendency toward symmetry in the simple Head-and-Shoulders Formation. Patterns of the Multiple or Complex type show an even stronger urge toward symmetry—so strong, in fact, that it may be counted on in determining trading policy. If there are two shoulders on the left, there are almost always two on the right of nearly the same size and duration. (One does not know that a Multiple is in the process of formation until its right shoulder becomes evident.) Except in volume, the right-hand half of the pattern is, in the great majority of cases, an approximate mirror image of the left.

Necklines on Multiple Head-and-Shoulders Formations are not always easy to draw because the reactions between the shoulders and heads may not stop at levels that all fall on a single line. Up-sloping and down-sloping variants seldom appear in this class of patterns; necklines are almost always very close to the horizontal. Sometimes, it is possible to estimate by simple inspection where the critical line really lies. More often, there are two necklines, an inner and an outer, and no price movement of consequence is to be expected until the outer has been penetrated (which is simply another expression of that tendency toward symmetry referred to above).

Curiously enough, the “power” of a Multiple Head-and-Shoulders Pattern is more apt to be over rather than underestimated. One might think, in view of the length of time and

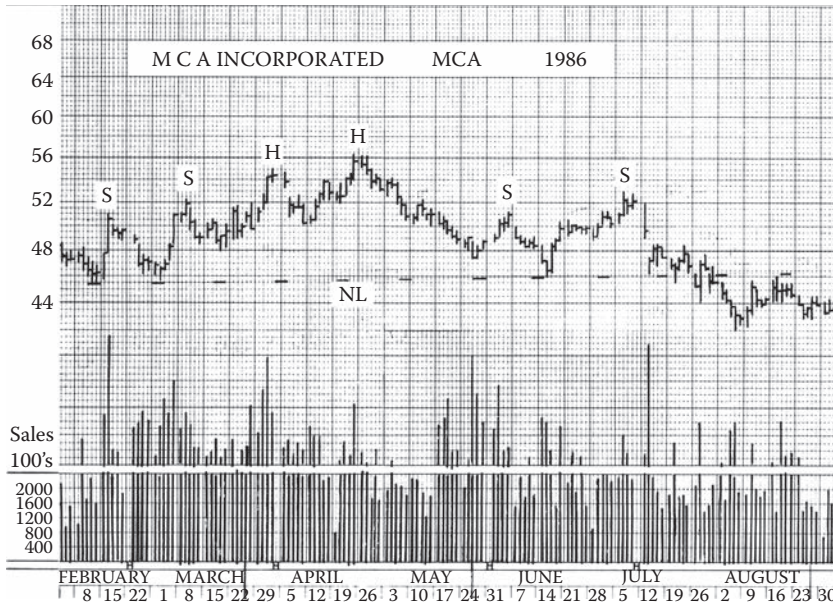


Figure 7.6 “MCA” enjoyed an excellent advance from 1980 to 1986, but the going became increasingly difficult after the turn of the year, when this issue began to challenge its 1985 high. Although the Bulls did manage to set a new high-water mark in April, a series of Pullbacks kept this issue well away from any further tests. Indeed, a large Complex Head-and-Shoulders Top appeared to be unfolding with the Major Neckline penetrated slightly on the sell-off.



Figure 7.7 An “ideal” Multiple Top made by Budd in 1946, with two heads. Observe accompanying volume. Prices often break away from Complex Formations more reluctantly than from the simple Head-and-Shoulders type. The late-March rally, which went back through the old neckline, was greater than normal in that respect, but the general market Averages were pushing to new highs at this time. Repenetration of a neckline does not, of itself, cancel the implications of a Reversal Formation.

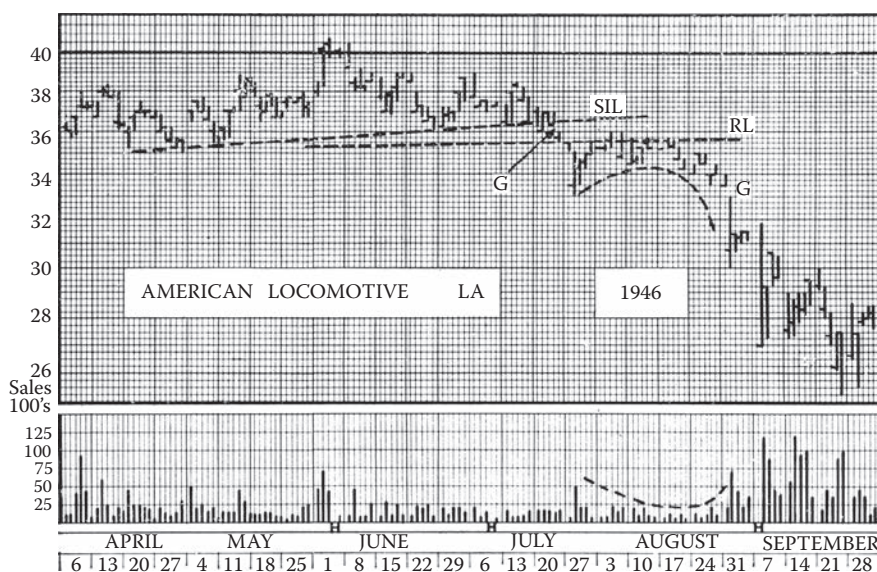


Figure 7.8 The long Multiple Head-and-Shoulders Top made by American Locomotive in 1946 displays very well the sort of volume pattern—irregular but taking on definitely Bearish character in its latter half—that is normal to this formation. The rounded Bear Market Rally of August (compare price and volume trends) was unable to attain the old neckline and was stopped at a Resistance (RL) created by earlier Bottom levels (see [Chapter 13](#)). G and G mark Breakaway Gaps that were not “covered” (see [Chapter 12](#)).

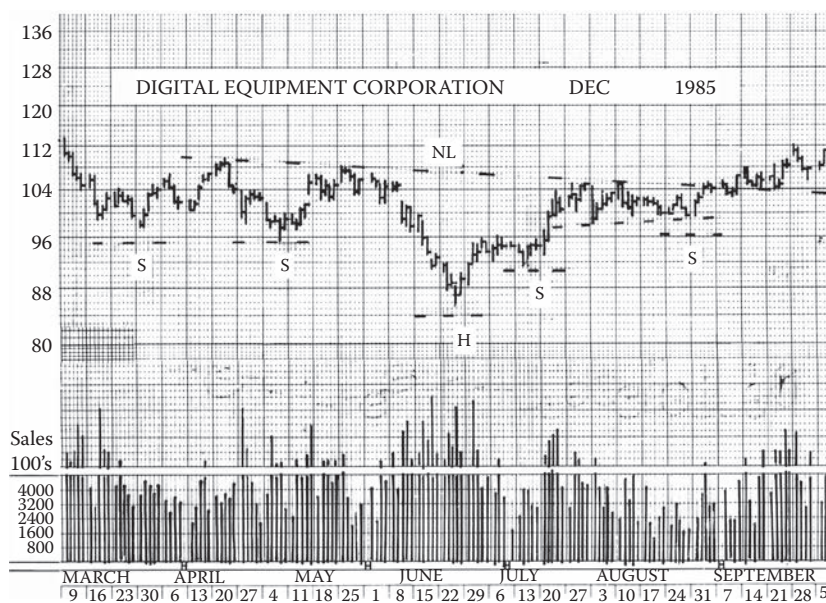


Figure 7.9 From a Head-and-Shoulders Top in February, Digital plunged sharply lower into mid-June, retracting roughly two-thirds of the 1983–1985 advance. The summer low was the head of a Broad, Complex Head-and-Shoulders (*EN: Or Kilroy*) Bottom. “DEC,” however, had already enjoyed a high-volume penetration of the neckline and was, therefore, in a buying position.

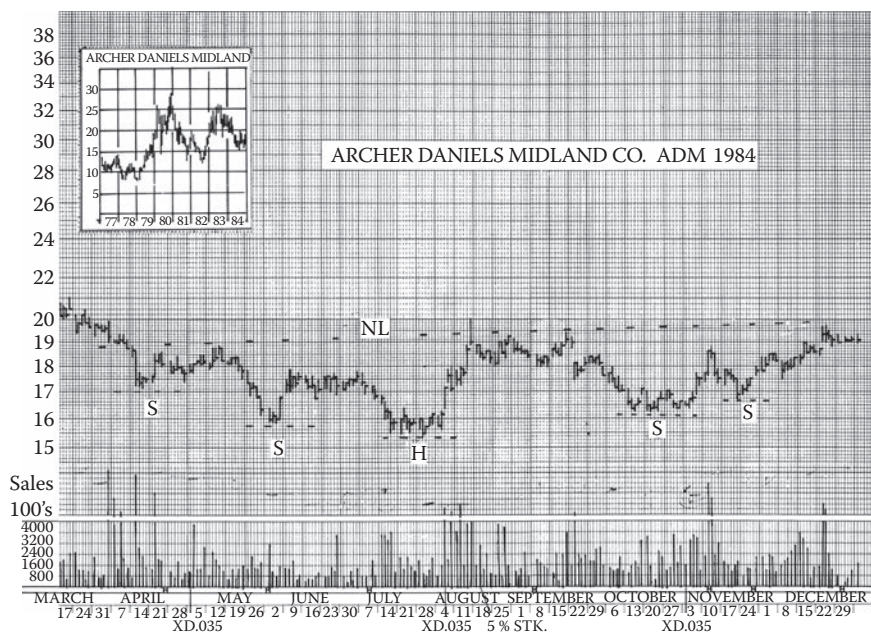


Figure 7.10 After testing its 1980 high in mid-1983, “ADM” turned sharply lower, retracing roughly 40% of the 1982–1983 advance by mid-1984. The summer low, however, appeared to be a Bottom. Indeed, if one looked at the volume pattern from April to November and correlated it with price activity, it was not difficult to make a good case for a Complex Head-and-Shoulders Bottom. A neckline through the closes gave us a go signal on a penetration of 20 5/8.

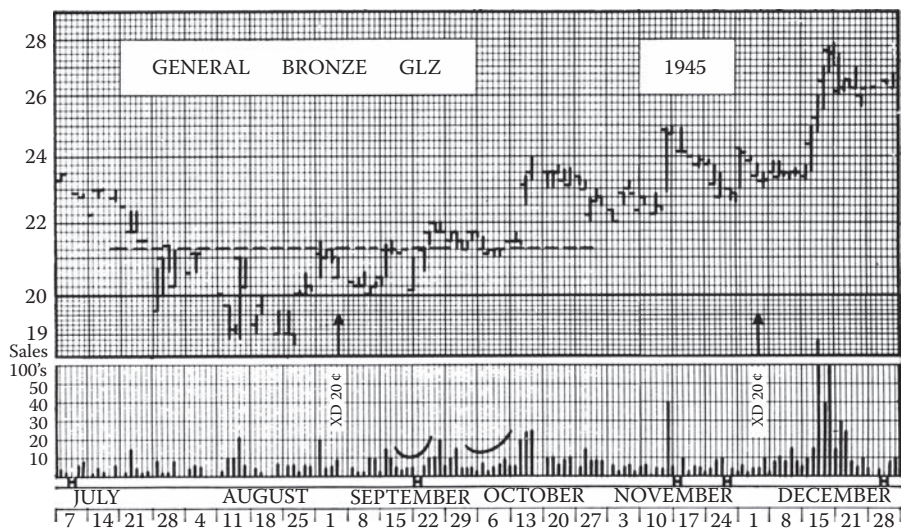


Figure 7.11 An Intermediate Bottom of the Complex class, abnormal in its lack of symmetry but, nonetheless, easy to recognize. Low volume on reactions after the Head was completed gave the usual (and essential) Bullish Confirmation. The sluggish start of the new trend was a common feature of Multiple Head-and-Shoulder Reversals.

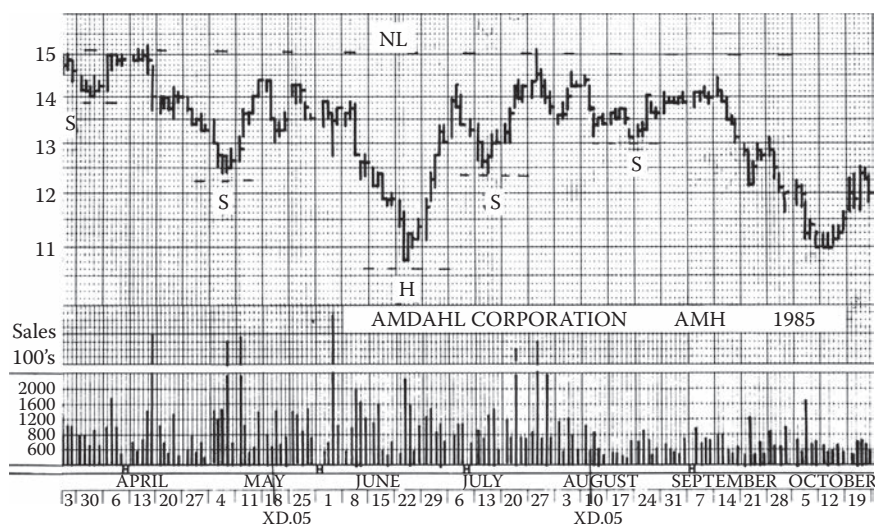


Figure 7.12 The slide in Amdahl occupied the Bears from March to June before a sharp rally gave notice that the Bulls were still alive. After that, a choppy sideways trading range evolved with Support near the Pullback lows established earlier in the year. Overall, there was a fine symmetry to this chart, including volume, which indicated the price action from March to September was actually a Broad Head-and-Shoulders Bottom. Entry was on a 3% breakout of the neckline with a minimum objective of 19 3/4.

amount of trading entering into its construction, that it would signal a move (in reverse direction to the trend preceding it) of greater extent than the simple Head-and-Shoulders. Yet, in its immediate consequences, at least, the Complex shows consistently less power. Minimum measuring rules for the two types of formations are the same and are applied in the same manner. The difference between the patterns appears in the price action after the minimum has been reached. The first downswing out of a plain Head-and-Shoulders Top, not counting any early Pullback Rally, will frequently carry out the minimum measuring implications of that pattern quickly and run well beyond it. From a Multiple Top, the first downswing is often more leisurely, and very seldom does it exceed the bare minimum—a probability well worth remembering when you are dealing with an Intermediate rather than a Primary Top. If the Complex does develop at a turn in the Primary Trend, prices will eventually go much farther; however, even then, there is usually a strong recovery (or reaction, in the case of a Bottom) from the “minimum rule” level.

A leisurely pattern

The volume attending the construction of Multiple Head-and-Shoulders conforms in general to the “laws” we have previously stated and explained for simple Head-and-Shoulders Reversals. During the earlier stages of Multiple Formation development, the volume chart may show much irregularity with little recognizable pattern, but in the latter stages, its correspondence with the Head-and-Shoulders Trend should be plainly seen.

There is something about Multiple Head-and-Shoulders Patterns that is especially pleasing to technical chart followers. Due to their symmetrical tendencies, it is fascinating to watch them evolve to completion. Once completed, however, they may try your patience by their seeming reluctance to “get going” with a new trend. On that account, it becomes

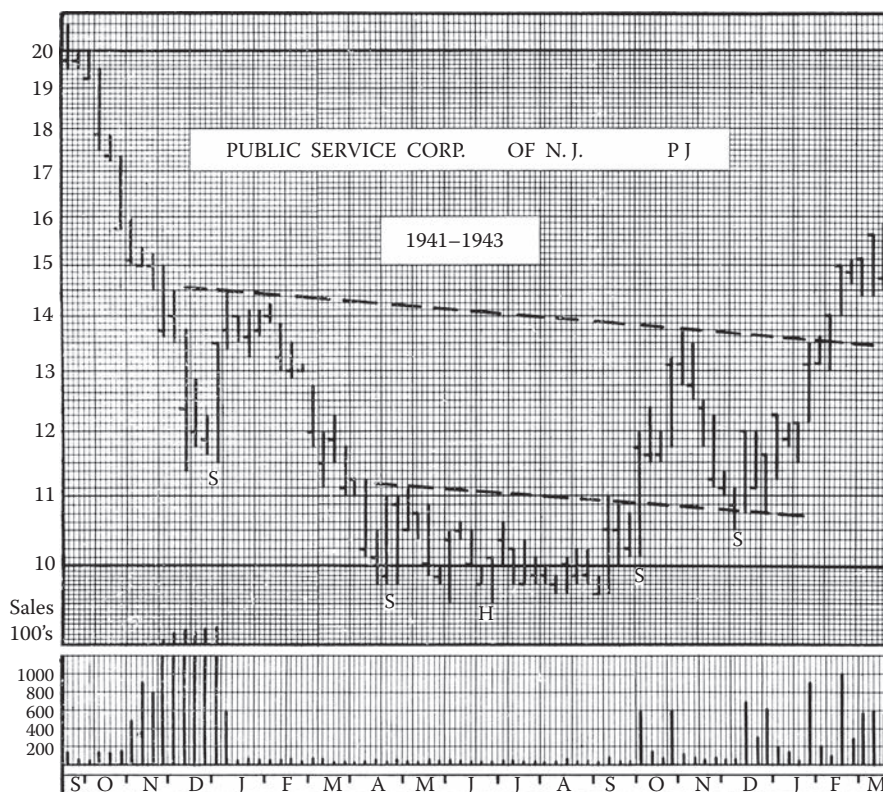


Figure 7.13 Another variant of the Head-and-Shoulders within a Major Reversal Formation. The smaller Head-and-Shoulders Pattern was easily overlooked on the daily chart. Moreover, although it was six months long, this pattern in itself did not necessarily imply Primary Reversal. Although, when it pushed “PJ’s” prices up in October through the great supply that had been lodged at 12–13 the previous December, something more than a Secondary Advance could obviously be in prospect. An up-move of consequence was not finally signaled, though, until February 1943 when the upper neckline was penetrated and prices closed at 14. Public Service “threw back” to 12 in November 1943 (to the old neckline exactly), but then advanced steadily to 30. Study this again when you take up Support and Resistance in [Chapter 13](#). This chart reiterates the point that, whereas Top Formations are often completed in a relatively short time, Major Bottoms usually require many months, and call for a great deal of patience. Allowing for the greater time needed, however, most Top Patterns have their counterparts in Bottom Formations.

easy at times to jump to the conclusion that they have “blown out,” that is, produced a false signal. Actually, except in the matter of extent of move, which we have already discussed, they are fully as reliable as the plain Head and Shoulders. False moves are relatively rare with both. And in those extraordinary cases when a Complex Formation does go wrong, it still stands, like the plain Head-and-Shoulders, as a warning that the final Reversal is near.

Rounding Tops and Bottoms

The Multiple Formations we have just examined are produced by a sort of extension or proliferation of the ordinary Head-and-Shoulders Pattern. Carry this process still further and the Complexes merge into our next class of Reversals, known as Rounding Turns.

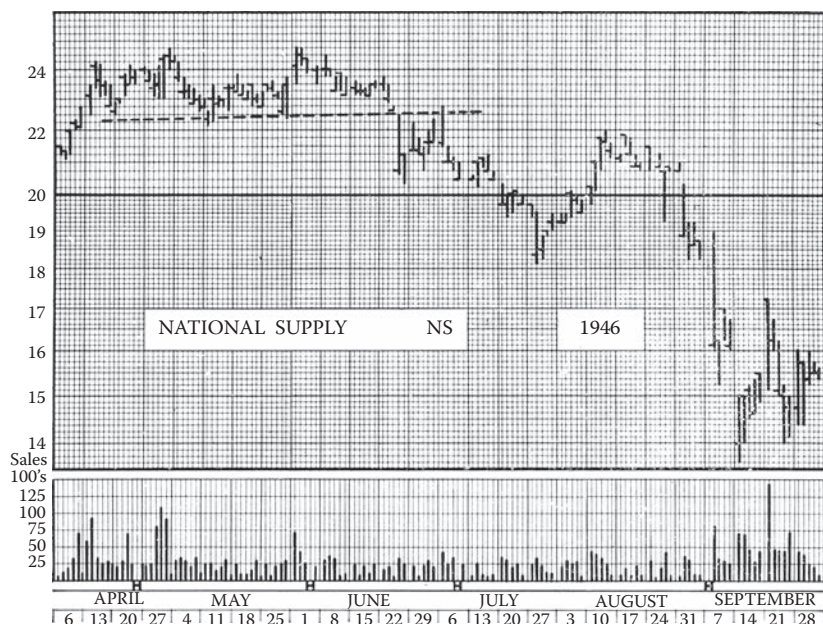


Figure 7.14 Still another form the Complex Reversal may take. This can be described as a Head-and-Shoulders Pattern with two widely separated heads. Study its volume pattern, noting the breakout on June 20 and the subsequent Pullback. Compare it with Bethlehem Steel's Bottom Reversal shown in [Chapter 12, Figure 12.12](#).

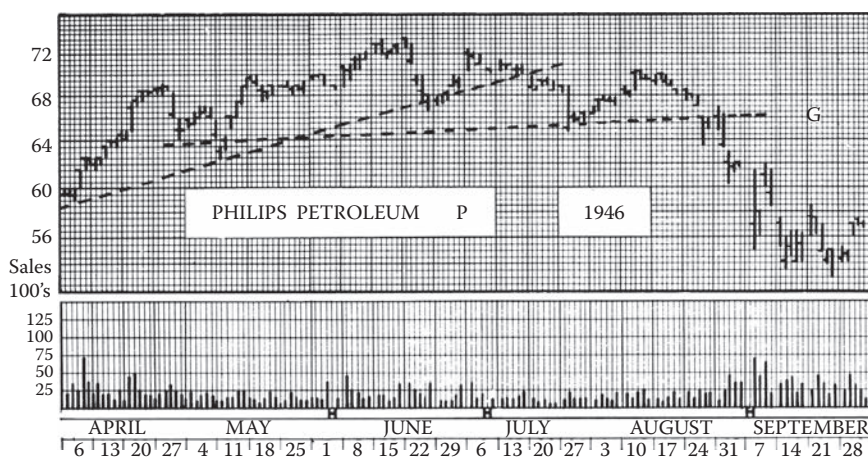


Figure 7.15 Major Top Reversal Patterns in high-priced investment issues are frequently long and "flat." The 1946 Top of Phillips Petroleum could be classified as either a Multiple Head-and-Shoulders or an irregular Rounding Top. An important trendline (see [Chapter 14](#)) was broken downside in July.

In our first approach to the theory of chart Reversal Patterns, we saw why it takes time and a considerable volume of trading to swing an established trend in prices from up to down or down to up. In the Head-and-Shoulders type of Reversal, the trend surges, struggles, and attacks again and again before it finally gives up and retreats. During this struggle, the balance between the forces of supply and demand fluctuates, often wildly,



Figure 7.16 The war-end reaction of 1945 in American & Foreign Power 2d Preferred, as well as in many other issues, took the form of a Rounding Bottom. Compare the price and volume trends. By October 4, the implications were plain to see.

until finally the one overcomes the other. In the Multiple Formations, a similar process goes on but rather less violently and, over a period of time, the progressive change from one force to the other becomes clearly apparent.

The Rounding Turn is a much simpler and more logical manifestation of this technical phenomenon. It pictures simply and plainly a gradual, progressive, and fairly symmetrical change in the trend direction, produced by a gradual shift in the balance of power between buying and selling.

If, for example, the buying has been stronger than the selling for some time past, we know the result will have been a general upward trend in the price of our stock, as indicated by our pictorial chart record of its trading history. So long as the buyers of the stock remain more anxious, more numerous, more aggressive, and more powerful than the sellers, that preceding upward trend will continue. Now, suppose the selling grows a little stronger while the buying either weakens slightly or remains stationary at its previous strength; this slight change in the technical balance will be indicated by a slowing up of the previous advance. As the selling increases in relative power, it will finally become equal to the buying power, with the result of the market level neither moving up nor down but remaining, for a time, quite stationary (except for Minor and insignificant fluctuations).

Assume the new development continues and the selling pressure grows until it is finally stronger than buying power. Now the balance is moving the other way. There are now more sellers than buyers, and the result will be a gradual decline in the market quotations for the stock. If this change in the balance of power is fairly steady and continues to its logical conclusion, we can see, even without the aid of a chart, that our picture of the price movement for that stock would be one of a long advancing trend slowly beginning to round off, holding in stationary suspense for a time, and then commencing a retreat, reversing the previous upward movement into a new and Accelerating Downward Trend.

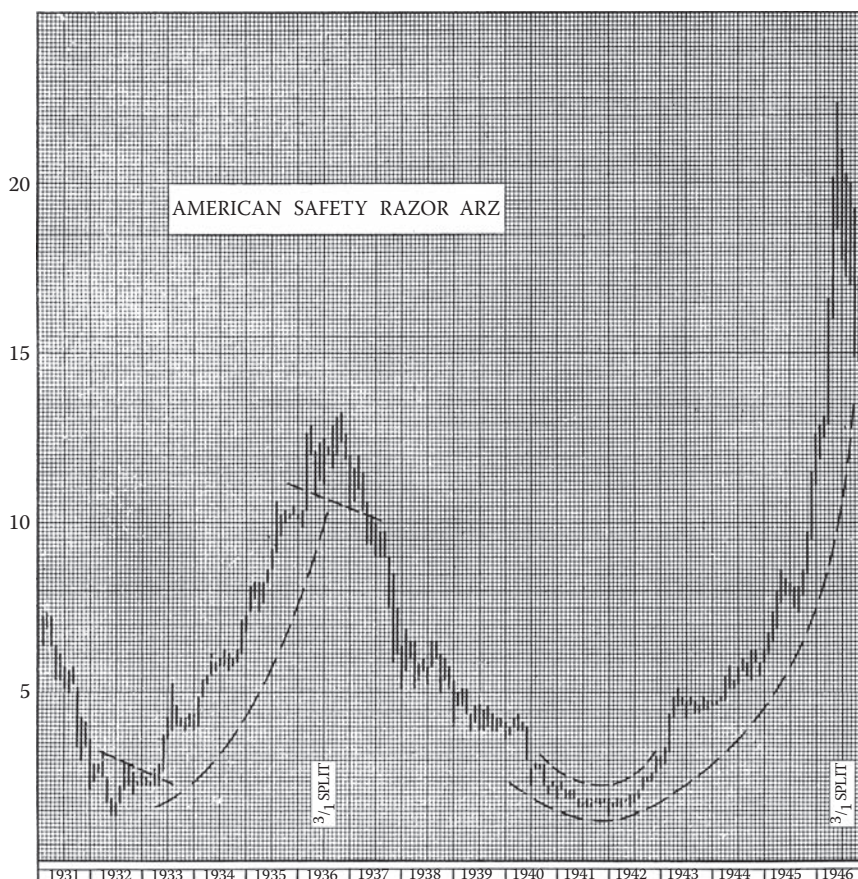


Figure 7.17 Monthly chart on an arithmetic scale. American Safety Razor’s 1932 Major Bottom was a Head-and-Shoulders and also its 1936 Bull Top. Its 1942 to 1946 Bull Market started from a Rounding Bottom nearly two and a half years long. Monthly chart study pays.

Rounding Bottoms are commonly referred to as *Bowl* or *Saucer* Patterns. Rounding Tops are sometimes called *Inverted Bowls*. Despite the logic of their construction, neither type appears as frequently as Head-and-Shoulders Formations. Rounding Bottoms occur most often in low-priced stocks, in an extended, flat-bottomed form that usually takes many months to complete. There was a host of such developments during 1942 and 1943 among issues selling under \$10.00 a share. (It should be noted here that “Saucer” Bottoms of two or three months’ duration also appear frequently, one right after another, in the charts of low-priced issues *during* an extended up-movement. Their characteristics and denotations will be discussed in the section “Consolidation.”)

Tops of the Rounding type are rare among stocks in the lower and medium-price ranges, but they are found occasionally in the charts of those high-priced common stocks that command an AA rating among wealthy investors and do not ordinarily interest the general public. They also appear frequently in the charts of high-grade preferred stocks, quite naturally because the demand for their shares reflects chiefly two factors—supply of funds seeking conservative investment and interest rates—both of which tend to change very slowly. The speculative appeal that produces wide-swinging price fluctuations is absent in such issues. The same line of reasoning explains why Rounding Tops almost never develop

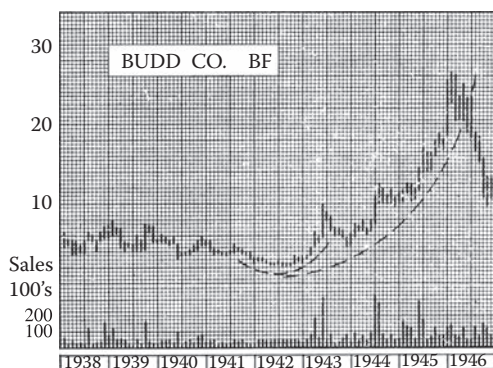


Figure 7.18 Monthly chart of Budd Company. Note that 1942 was the first year to produce a dull Saucer-Shaped Pattern, a Rounding Bottom of Major import. “BF” climbed from below 3 in 1942 to above 26 in 1946.

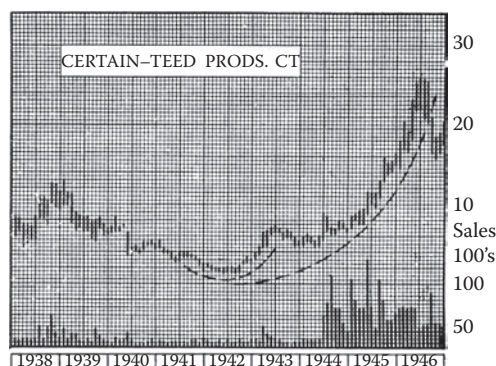


Figure 7.19 Similar formation in CertainTeed Products, which rose from below 2 in 1942 to above 25 in 1946. Study volume, 1940 to 1945. The up-curving type of Major Bull Trend shown on these charts will be discussed in [Chapter 15](#).

in lower priced, speculative common stocks; Bull Markets in those stocks are topped off by excited public buying that pays little or no heed to long-range investment considerations.

How Rounding Turns affect trading activity

We have not yet mentioned the volume half of the Rounding Turn picture, which is interesting, as well as meaningful. In the case of Rounding Bottoms, its pattern is usually as clean-cut and decisive as the price pattern. The first step in the gradual conquest of supply by demand, which produces a Rounding Bottom, appears as a lessening in selling pressure. Volume, which has been running high, gradually decreases. Demand is still timid, but the pressure on it is less; so, while prices still decline, the pace is slower and the trend curves more and more to the horizontal. At the Bottom, with the two forces technically in balance, relatively few transactions are recorded. Then demand begins to increase, and as the price curve turns up, trading becomes more active. Volume accelerates with the trend until often it reaches a sort of climactic peak in a few days of almost “vertical” price movement on the chart.

In such formations, the tips of the volume lines at the bottom of the chart, when connected, will describe an arc that often roughly parallels the arc formed by the price

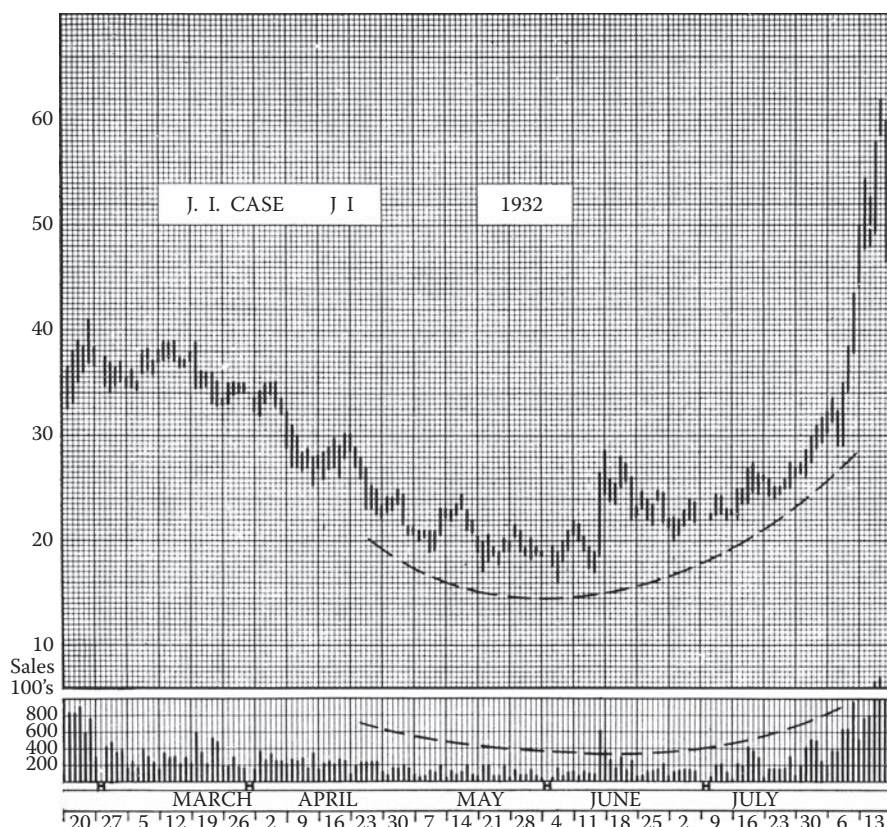


Figure 7.20 A classic example of Rounding Bottom at the Major Trend Reversal of 1932. The jump out of line on June 10 and subsequent return to the Saucer Pattern is a common development in Rounding Bottoms.

“Bowl” above. These patterns, when they occur *after an extensive decline*, are of outstanding importance, for they nearly always denote a change in Primary Trend and an extensive advance yet to come. That advance, however, seldom carries in a “skyrocket” effect, which completes the entire Major Move in a few weeks. On the contrary, the uptrend that follows the completion of the pattern itself is apt to be slow and subject to frequent interruptions, tiring out the impatient trader, but yielding eventually a substantial profit.

Let us repeat that trading volume should ebb to an extreme low at the Bottom of a Bowl Pattern if its implications are to be trusted. After prices have passed dead center, however, and have begun their first gradual climb with as yet only a slight pickup in activity, something in the nature of a premature breakout may occur. Without warning, a burst of buying may shoot quotations straight up for a day or two. These incidents are by no means rare, but, almost invariably, prices will quickly drop back again into their former channel, and the gradual rounding movement is resumed. There is no particular danger for the trader in these premature bursts, but if he is tempted to jump in on such a sudden showing of strength, he should realize there probably will still be need for patience. A classic example of this type of premature break is shown in [Figure 7.20](#).

See [Chapter 16](#) for some very important 2005 rounding bottoms and their consequences up to 2011.

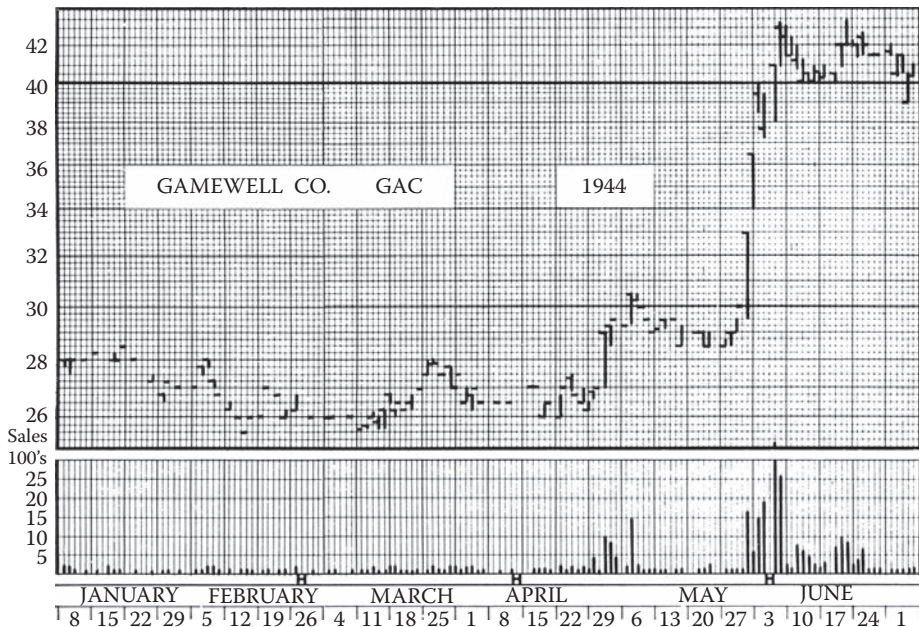


Figure 7.21 An extreme case of Dormant Bottom. There were many days in the first four months during which no shares were traded. A "buy" signal appeared on April 26. Note the volume.

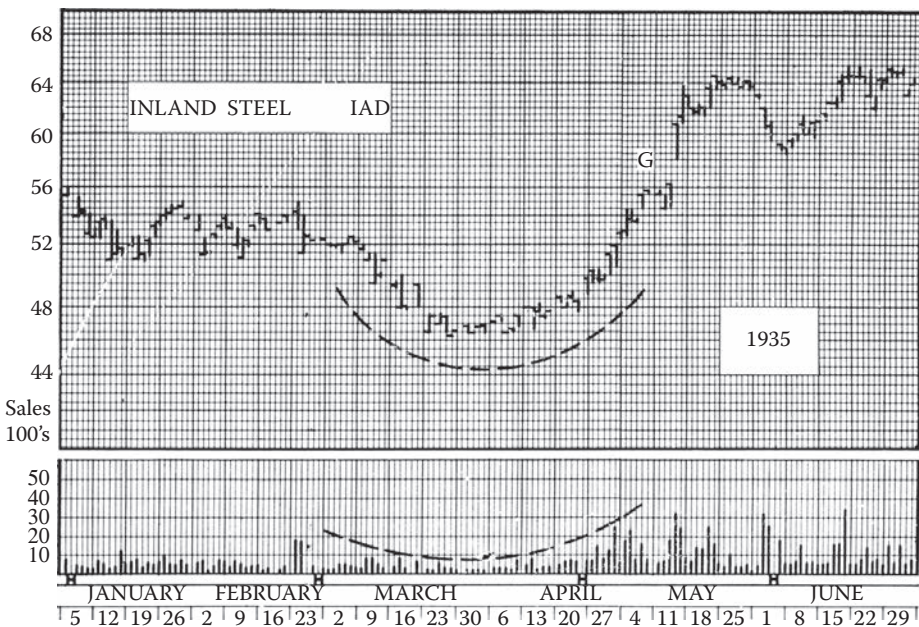


Figure 7.22 The March 1935 reaction produced many Rounding Bottoms. This one verges on the dormant type. The gap (G), a Breakaway through a Resistance Level, was not closed until late 1937 (see [Chapter 12](#)).

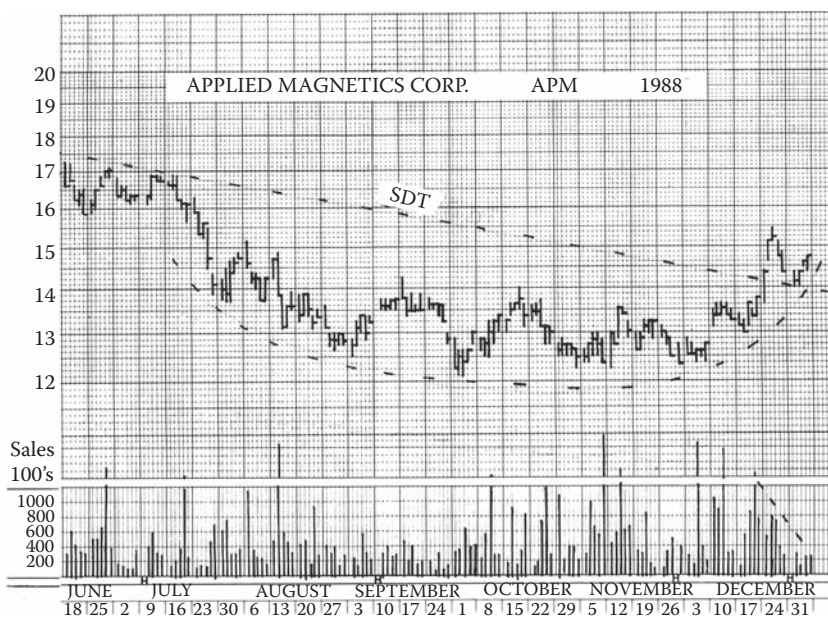


Figure 7.23 In a broad trading range (11–17 1/2) during 1988, “APM” turned down from Resistance in the summer. The reaction, however, was slow, forming a Saucer-like Pattern from July through November on generally Bullish price–volume correlation. Of particular note was the fact the low point of the Saucer was above the February low, that is, higher lows were beginning to emerge. The High-Volume Rally through the Short-Term Downtrend Line signaled the start of the next up-leg.

The Dormant Bottom variation

One sort of Major Bottom chart picture has been called a *Dormant Bottom*. This variation relates logically to our Bowl Pattern, being, in effect, an extreme development of the “extended, flat-bottomed form” to which we have alluded above. It appears characteristically in “thin” stocks, that is, those in which the total number of shares outstanding or, more particularly, the floating supply of shares is very small. In such issues, a normal day’s turnover may be only two or three hundred shares in an active rising market. Finally, weeks and sometimes months will pass during which no sales will be registered for days at a time, or only an occasional lot at a figure that fluctuates within a fractional range, making the chart appear “flyspecked.”

Eventually, there may appear a sudden and usually quite inexplicable flurry of activity. Several hundred shares appear on the tape and prices advance sharply. This “breakout of dormancy” can be a premature move, such as we have noted in connection with typical Rounding Bottoms, to be followed by several more weeks of inactivity, or it can be the first lift in a sort of step-up process with shorter and shorter intervals between each step, until a consistent uptrend finally develops. In any event, it is a signal that we are dealing with an important Accumulation Pattern.

What has happened to form these Dormant Bottoms is easy to guess. With relatively few shares outstanding, and only an occasional lot put up for sale “at the market,” investors (perhaps insiders connected with the company) would succeed only in running the price up out of reach if they started to bid for the stock. So they simply “hold a basket under it,” as the saying goes, quickly picking up anything that is offered but never reaching for it,

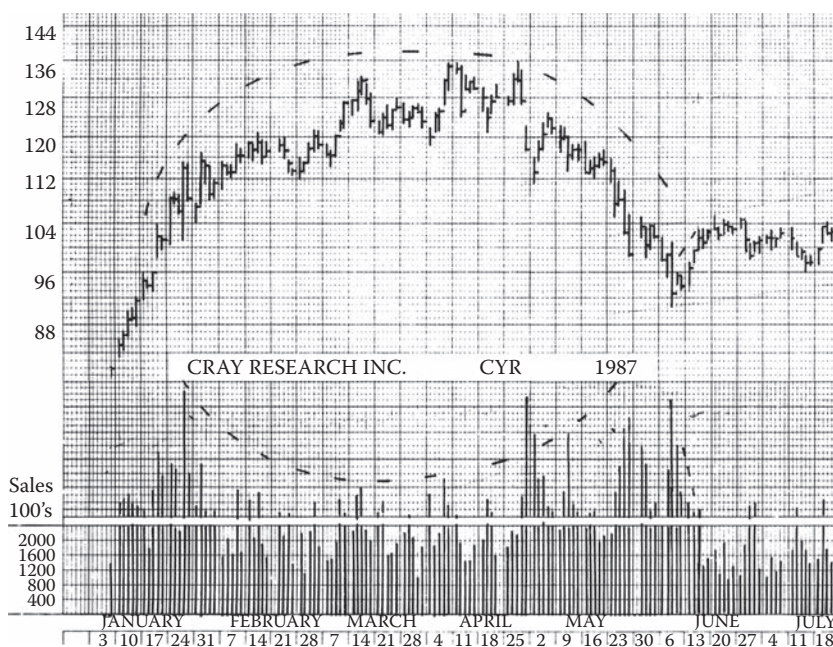


Figure 7.24 Cray Research, a powerhouse stock for over a decade. Trading at under \$1.00 in 1976, it reached 135 3/4 before the late April gap, through the Bottom of a seven-week Diamond, started the decline. However, after the High-Volume Rally in mid-January, “CYR” also managed to form an impressive Rounding Top. The concave volume pattern, clearly evident after the high-volume decline to Support that followed the Diamond breakdown, was particularly significant in illuminating this Topping Pattern.

until eventually the tree is shaken clean. Then they may raise their bids a point or so; if that seems to bring out a lot of stock for sale, they go back to their waiting tactics.

Volume pattern at Tops

The volume pattern on Rounding Tops is seldom as clearly defined as at Bottoms. Indeed, it is apt to be rather high and irregular throughout the entire rounding-over movement in prices. Under scrutiny, one can usually see some signs of a change from Bullish to Bearish activity in the Minor Fluctuations after the peak has been passed, but the volume warnings do not become conspicuous in most cases until the downtrend has begun to accelerate toward the vertical.

We know of no measuring formula that can be applied to Rounding Turns (except for the minimum qualifications we mentioned in connection with Head-and-Shoulders, that is, they cannot be counted on to produce a greater move than the preceding price swing in the opposite direction), but they almost never deceive. Their implications can be roughly estimated from the magnitude of the trends that led to them and the length of time they take in the rounding-over process. The Rounding Turns that often appear on weekly and monthly charts, thus, have major import.

This leads us to the general consideration of weekly and monthly chart patterns. Thus far, we have been speaking in detail of only daily chart developments, but all of the formations we have taken up appear, as well, in the much larger swings into which daily movements

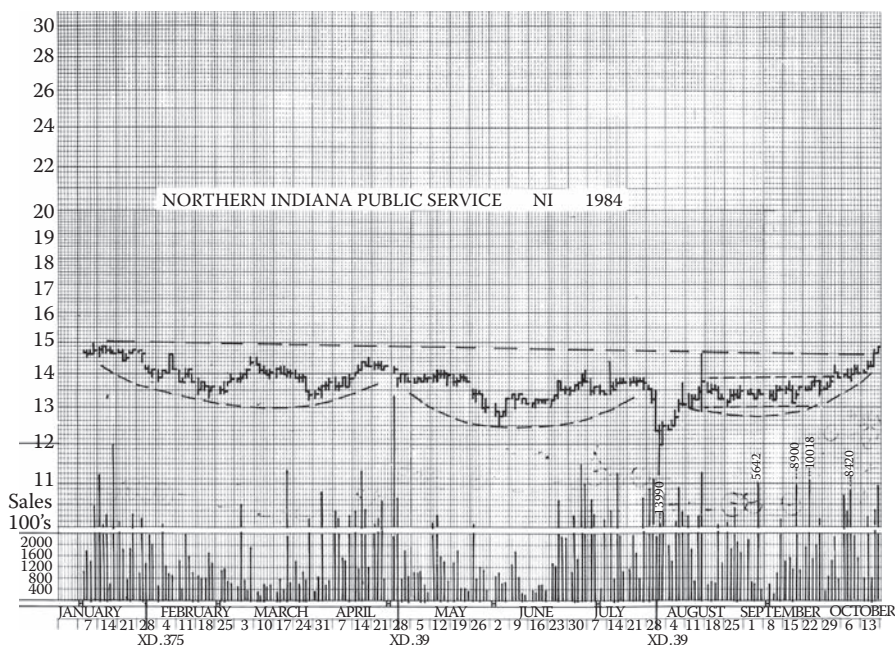


Figure 7.25 1984. We love the Scalloping tendency of Northern Indiana Public Service. Although it is obviously not a pattern portending rocket-like advance, the technical picture brightens with the high-volume breakout through Resistance at chart end.

are condensed on weekly and monthly charts, and with identical significance. Thus, volume record may not be quite so easy to read (climactic activity may occur on one day of a week and the other days run dull, which would not show at all in the week's total figure), but it is less critical and may almost be disregarded. Head-and-Shoulders Tops are particularly plentiful on monthly charts and should be accorded due respect. In fact, any clearly defined pattern, which is built to completion on a weekly or monthly chart, is proportionately significant (bearing in mind that "a Reversal must have something to reverse").



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chapter eight

Important Reversal Patterns: the Triangles

We come next to an entirely different family of technical patterns, the Triangles, a group that has not been as well represented on the charts of the decade of the 1940s as it was during the 1920s and 1930s (*EN10: In plentiful supply in modern markets of the 2000s*). Their scarcity in that decade is regrettable because they are an intriguing lot with excellent profit potential. Before we examine them in detail, however, a quick review of the basic theory, which gives meaning and value to technical analysis, may be appropriate. That theory can be summarized in the following brief statements (see [Figures 8.1](#) through [8.25](#)).

1. The market value of a security is determined solely by the interaction of supply and demand.
2. Supply and demand are governed at any given moment by many hundreds of factors, some rational and some irrational. Information, opinions, moods, and guesses (shrewd or otherwise) as to the future combine with blind necessities in this equation. No ordinary man can hope to grasp and weigh them all, but the market does this automatically.
3. Disregarding Minor Fluctuations, prices move in trends that persist for an appreciable length of time.
4. Changes in trend, which represent an important shift in the balance between supply and demand, however caused, are detectable *sooner or later* in the action of the market itself.

By this time, the fact expressed in the italicized words of the last statement may have begun to raise some misgivings in your mind. The complaint that the Dow Theory is often “late” has already been discussed. The Reversal Patterns studied in the two preceding chapters give no certain signal until after the trend has changed, usually “sooner” as compared with Dow Theory, but never at the absolute top or bottom price. The man who sells a stock as soon as, but not until, a Head-and-Shoulders Top has been completed on its chart may cash in on no more than half of the total decline from its extreme high to extreme bottom; this is due to the very terms of our measuring formula, the first half of the decline can have taken place before the Top Reversal Formation was finally confirmed.

Make up your mind that there is no help for it. Somebody managed to sell his shares at the very top eighth of a point on the peak of the Head (and some poor devil bought them). The seller was just plain lucky. His exploit can be truly compared with a hole-in-one in golf; even a complete duffer occasionally enjoys that thrill. But the more experienced a player, the better satisfied he is to land safely on the green and not too far from the cup. The more experienced an investor, the less concerned he is with getting the last point, or even the last 10 points, out of his market commitments.

No one can ever be sure *at the time* that he is selling at the final high. No rules or methods have ever been devised—or ever will be—to ensure buying within fractions of the Bottom or selling within fractions of the Top. Of course, a man can make certain of buying a stock at its absolute low provided he is prepared to take at that figure every last

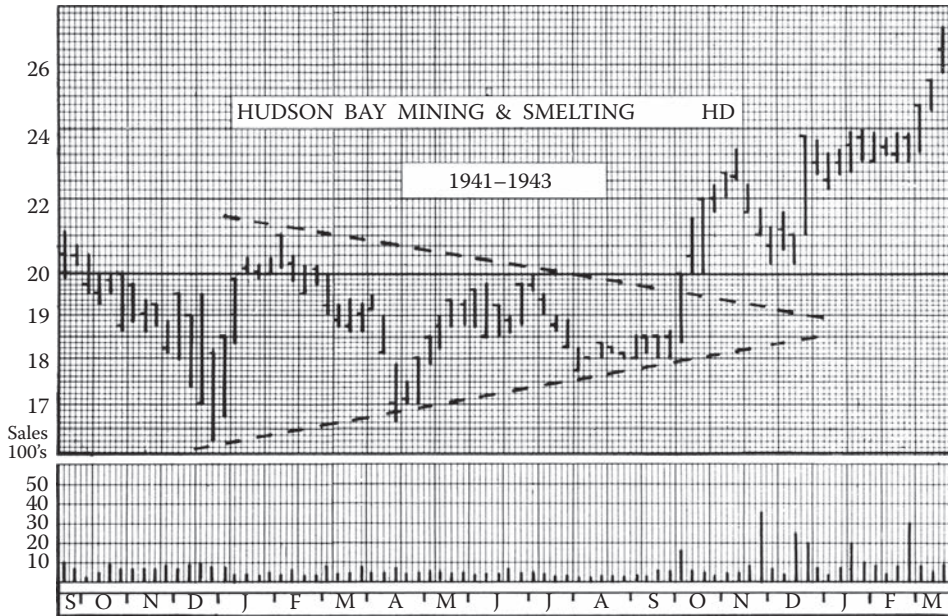


Figure 8.1 A fine Symmetrical Triangle Reversal Formation on a weekly chart. Upper boundary sloping down from February 1942 recovery high at 21 and lower boundary sloping up from “Pearl Harbor” Bottom at 16 3/8 converge to an apex of about 18 5/8. From this Major Bottom Pattern, “HD” advanced to 45 in 1946. Note the shrinkage in volume as a pattern formed and the increase as the price broke out through the Top in October 1942. Breakout came not quite three-quarters of the way over from the first Top to the apex.

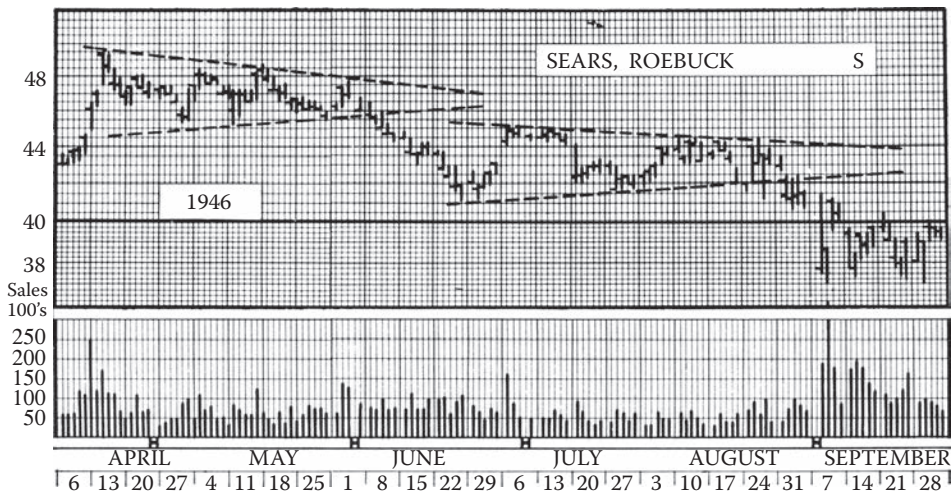


Figure 8.2 Sears Roebuck made a Symmetrical Triangle Reversal at its Bull Market Top in 1946, and then it went into another long Triangle that turned out to be a Consolidation rather than Reversal Formation. (Logarithmic volume scaling minimizes volume variations.) Sell signal was given at 44 1/2 and again at 41. Decline continued to 30 1/2.

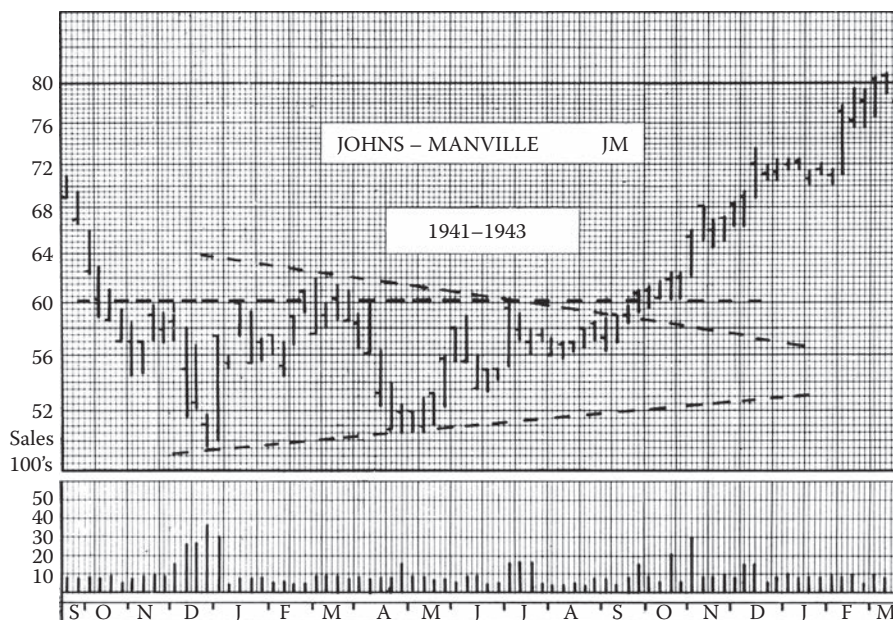


Figure 8.3 Johns-Manville's Primary Trend Reversal in 1942 developed out of a Symmetrical Triangle that also had some aspects of a Head-and-Shoulders Pattern with a long right shoulder. Although this is a weekly chart, the volume here is worthy of detailed study in connection with the price action. "JM" (old stock) advanced more than 100 points in the next four years.

share offered, even to the entire outstanding issue if necessary. It might, in theory, require as much as \$3.7 billion to "put a bottom" under U.S. Steel at 70 (EN9: ca. 1950s) in case you are tempted.

The reader, who at this point may think we "protest too much," will see more excuses for the foregoing remarks when we take up the habits of Triangles, for these formations are not always indicative of Trend Reversal. On the contrary, except in certain rather uncommon varieties, they are more apt to signal what may most conveniently be termed *Consolidation*, terminating an up or down move only temporarily and setting the stage for another strong move in the same direction later on. (Schabacker called such chart formations "Continuation Patterns.") The reason for including Triangles in this section of our studies under the general heading of Reversal Formations is that they do, at times, develop at periods of Major Trend change, and those are, by all odds, the periods that are the most essential for the investor to recognize.

Symmetrical Triangles

The most common form of a Triangle is composed of a series of price fluctuations, each of which is *smaller than its predecessor*, each Minor Top failing to attain the height of the preceding rally, and each Minor Recession stopping above the level of the preceding Bottom. The result is a sort of contracting "Dow Line" on the chart—a sideways price area or trading range whose Top can be more or less accurately defined by a *down-slanting* boundary line and whose Bottom can be similarly bounded by an *up-slanting* line. This type of Triangle is called a Symmetrical Triangle. If we wanted to make a more accurate application of the language of geometry, we might better call it an Acute Triangle because it is not at

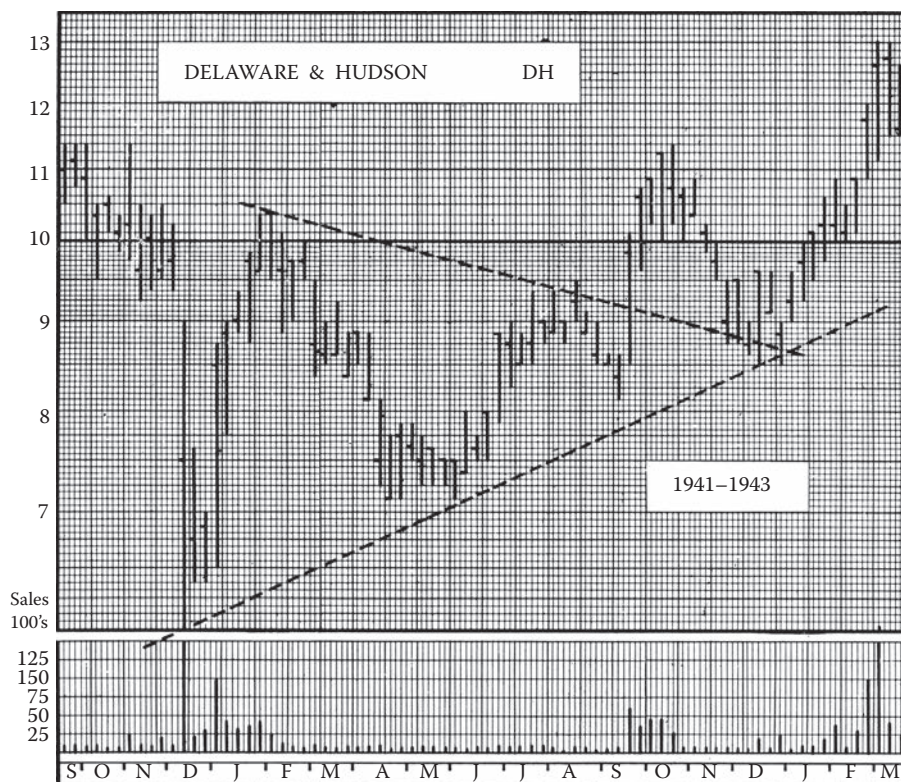


Figure 8.4 Logarithmic price scaling on weekly chart emphasizes important technical developments at low price levels. “DH’s” Symmetrical Triangle Bottom started a Bull Market that reached 57 in 1945. Note the Throwback to apex of Triangle, not an uncommon development. The apex itself is a strong Support (see [Chapter 13](#)).

all necessary that its Top and Bottom boundaries be of equal length or, in other words, that they make the same angle with the horizontal axis. However, there is a very strong tendency in these formations to approximate the symmetrical form; so, the established name will do well enough. This pattern is also sometimes referred to as a “Coil.”

While the process of contraction or coiling, which makes up the price action of the Symmetrical Triangle Pattern, is going on, trading activity exhibits a diminishing trend, irregularly perhaps, but nevertheless quite noticeably as time goes on. The converging upper and lower boundary lines of the price formation come together somewhere out to the right (the future in the time sense) of the chart, at the apex of our Triangle. As prices work their way along in narrower and narrower fluctuations toward the apex, volume ebbs to an abnormally low daily turnover and, if we are dealing with a typical example, comes the action that first suggested the name “Coil.” Suddenly and without warning, as though a coil spring had been wound tighter and tighter and then snapped free, prices break out of their Triangle with a notable pickup in volume, and leap away in a strong move that tends to approximate in extent the up or down move that preceded its formation.

There is seldom any clue given on the one chart containing the Triangle to tell in which direction prices are going to break out of the pattern until that action finally occurs. Sometimes you can get a pretty good idea of what is likely to happen by observing what is going on at the same time in the charts of other stocks (which is an important topic for

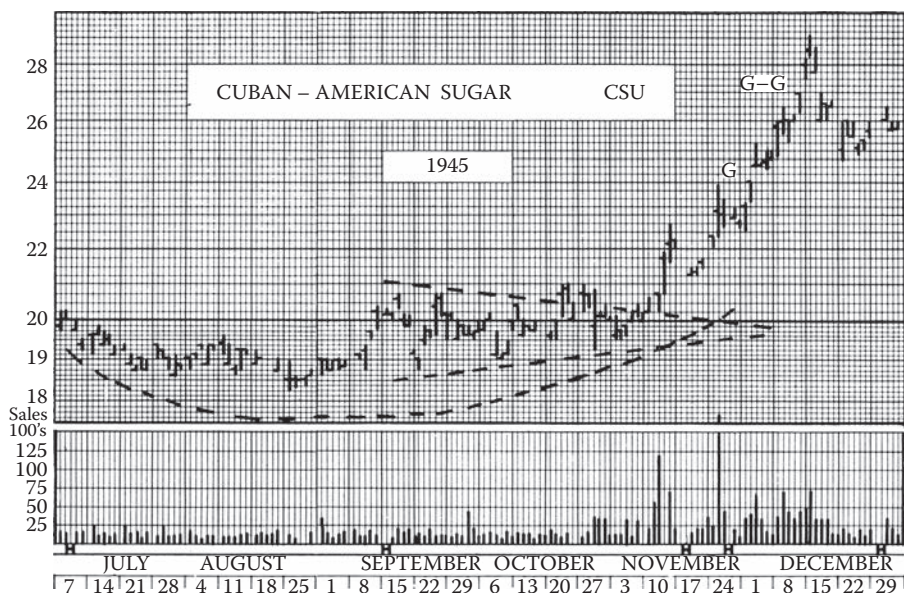


Figure 8.5 Triangles often form as a part of a larger and more important pattern of some other type. Here a symmetrical figure constitutes the latter half of a Rounding Turn. Note the premature breakout on October 17, return to pattern, and then final breakaway on November 8.

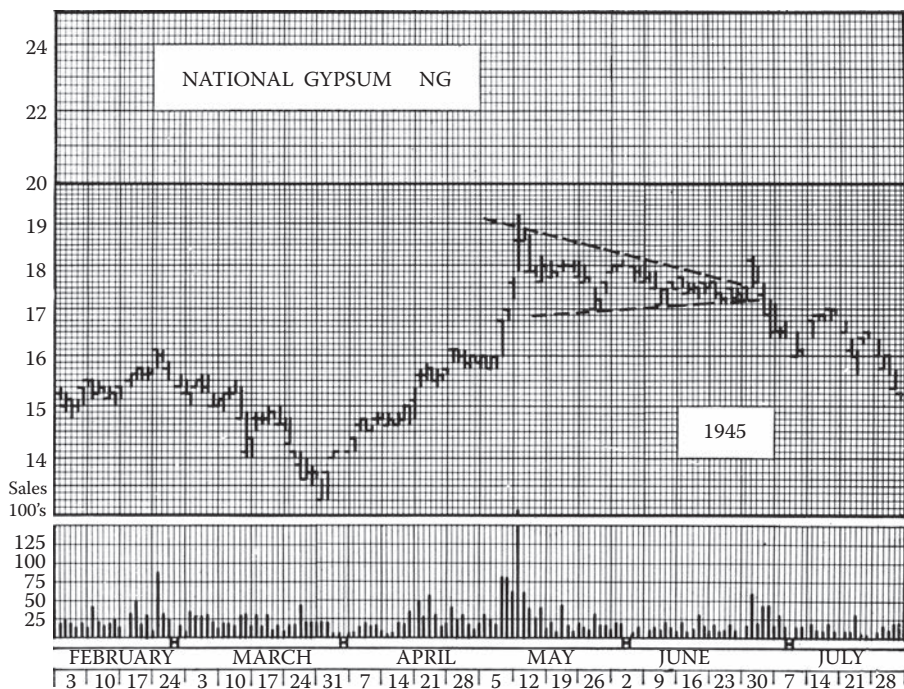


Figure 8.6 Prices in this Symmetrical Triangle squeezed way out into the apex before erupting. Breakout at that stage is unreliable; above is a fair sample of the false moves that occur there. Real move was down.

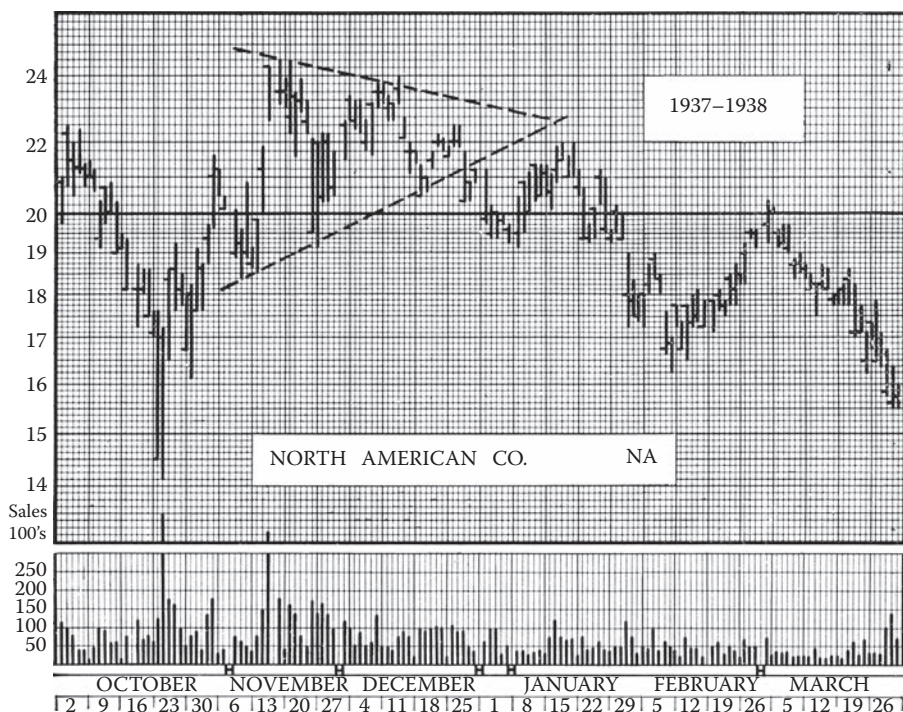


Figure 8.7 Recovery rallies from “Panic” Bottoms are often capped by Triangles, for those are periods in which doubt and indecision are prevalent. The doubt in such cases, however, is usually resolved in favor of renewed decline. “Panic” Bottoms seldom hold. This chart shows a typical Symmetrical Pattern topping the recovery from the famous Selling Climax of October 19, 1937. Note Pullback to apex.

later discussion). Often, however, there is nothing to do but wait until the market makes up its mind which way to go. And “making up its mind” is just what the market seems to be doing when it builds a Triangle; everything about this pattern appears to exemplify doubt, vacillation, and stalling until finally a decision is reached.

Some cautions about Symmetrical Triangles

A compact, clean-cut Triangle is a fascinating picture, but it has its tricky features. The beginner in technical chart analysis is quite naturally prone to look for Triangles constantly, and will often think he has detected them when, in fact, something entirely different is in the process of development. Remember, it takes 2 points to determine a line. The top boundary line of a price area cannot be drawn until two Minor Trend Tops have been definitely established, which means prices must have moved up to and then down away from both far enough to leave the two peaks standing out clear and clean on the chart. A bottom boundary line, by the same token, cannot be drawn until two Minor Trend Bottoms have been definitely established. Therefore, before you can conclude that a Symmetrical Triangle is building, you must be able to see *four* Reversals of Minor Trend. If it comes after an advance in prices, you must first have a Top, next a Bottom, then a second Top lower than the first, and finally a second Bottom higher than the first Bottom (and prices must move up away from the second Bottom before you can be sure it is a Bottom). Then, and only then, can you draw your boundary lines and proceed on the assumption you have a Symmetrical Triangle.

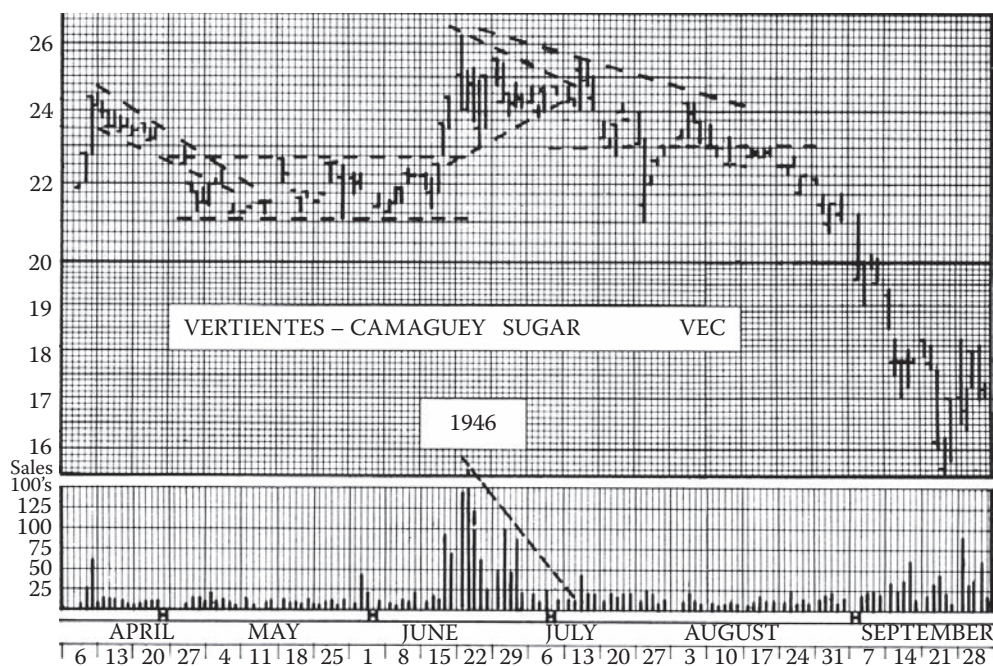


Figure 8.8 A Major Symmetrical Triangle Top in which prices squeezed out into the apex and then produced a false move upside (see Figure 8.6). “VEC,” as a matter of fact, was a bad actor technically, but this particular breakout would be suspect anyway.

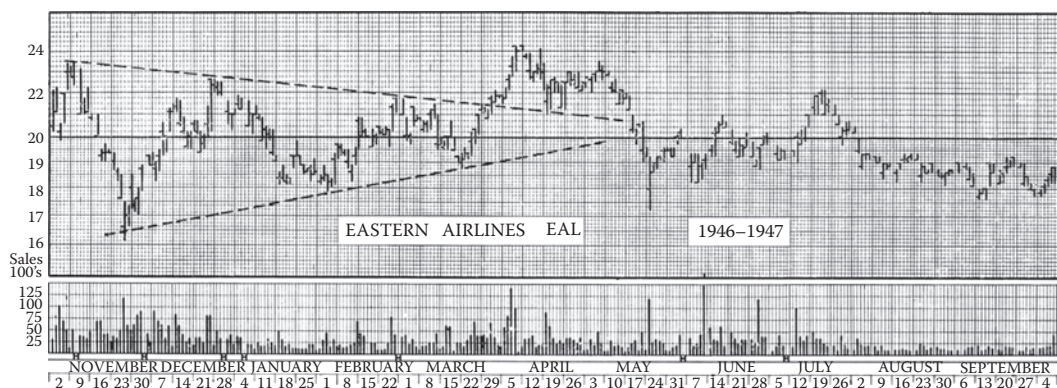


Figure 8.9 The other side of the story—an imposing Symmetrical Triangle which failed badly, although for the alert and experienced technician, there were warnings of something amiss in March and April. Eastern Airlines built, in late 1946 and early 1947, a formation which, so far as price pattern was concerned, left little to be desired. Prices broke out topside decisively in late March. A Throwback in April met normal Support at the upper Triangle boundary, but the subsequent advance fell short, weakened, and finally broke down, producing an “end run” around the apex. Warnings referred to were high and irregular volume, particularly on reactions, in February and March—not characteristic of valid Triangle development—and failure of prices to push up rapidly and vigorously after the April 14 Throwback.

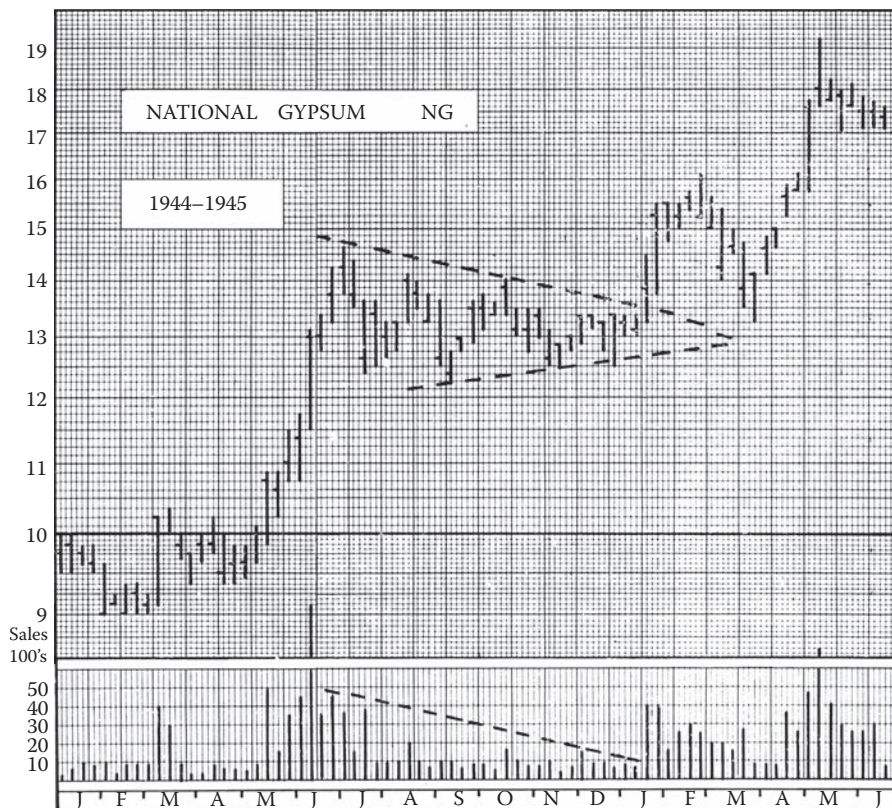


Figure 8.10 A weekly chart. The seventh-month Consolidation area of 1944—in “NG,” undefinable at first, developed eventually into a typical Symmetrical Triangle. Two months after the high-volume breakout in January 1945, prices reacted nearly to apex level and then pushed away rapidly. Minimum measuring implications of this Triangle were satisfied at 16.

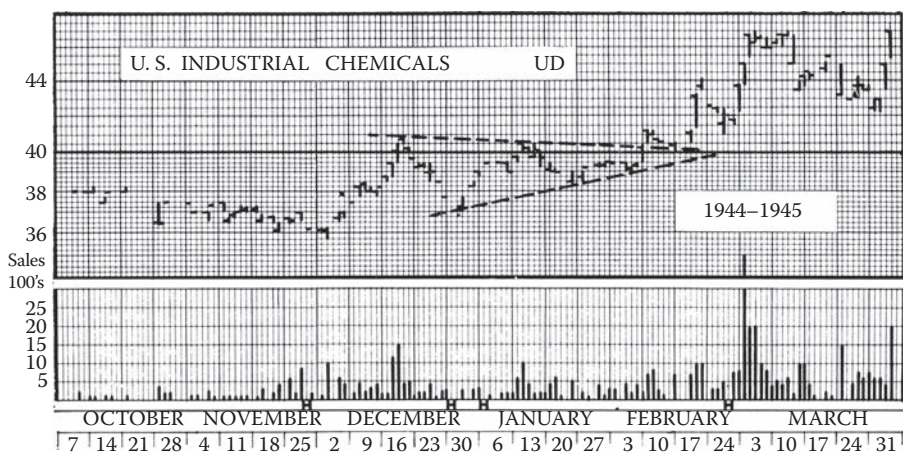


Figure 8.11 A small Symmetrical Triangle that tended toward the “Ascending” type. Note that the higher volume that developed within this pattern in early January came on a rally. This sort of action is fairly typical of very “thin” stocks.

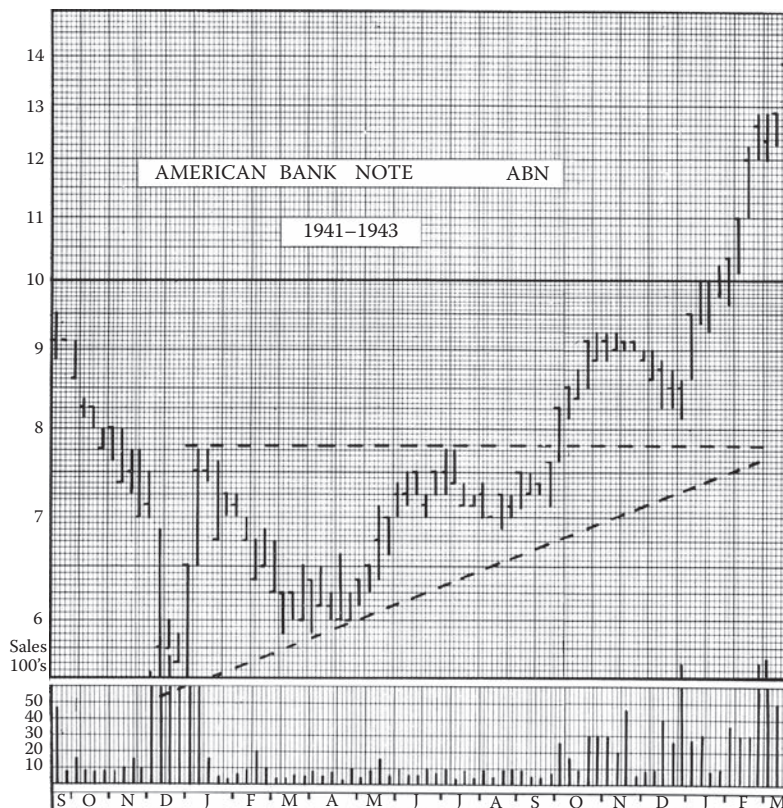


Figure 8.12 An Ascending Triangle 10 months long, which was the start of a Major Bull Trend, carrying “ABN” to 45. Refusal of prices to react to the lower pattern boundary, as here in August 1942, is a frequent development in strong formations, a warning of near completion and breakout.

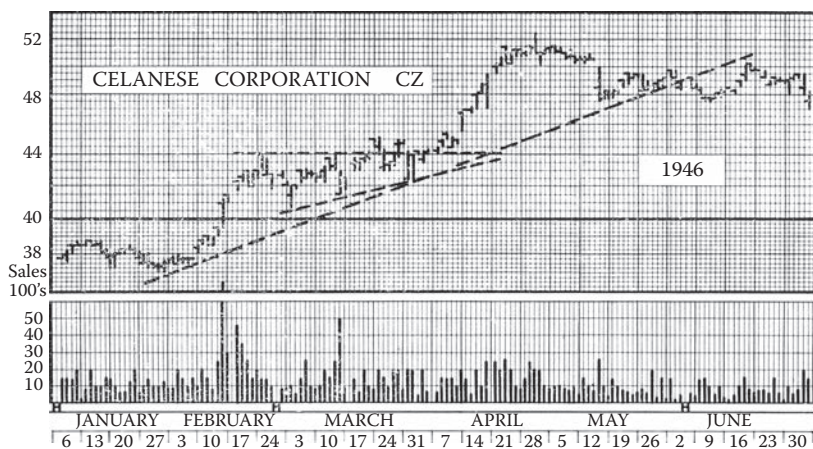


Figure 8.13 Premature breakouts from Right-Angle Triangles, such as appeared in Celanese in March 1946, are temporarily disappointing to the trader who buys on them, but they eventually work out all right. Celanese, before its 1946 split, was subject to frequent and peculiar shakeouts, as here on March 9 and 26.

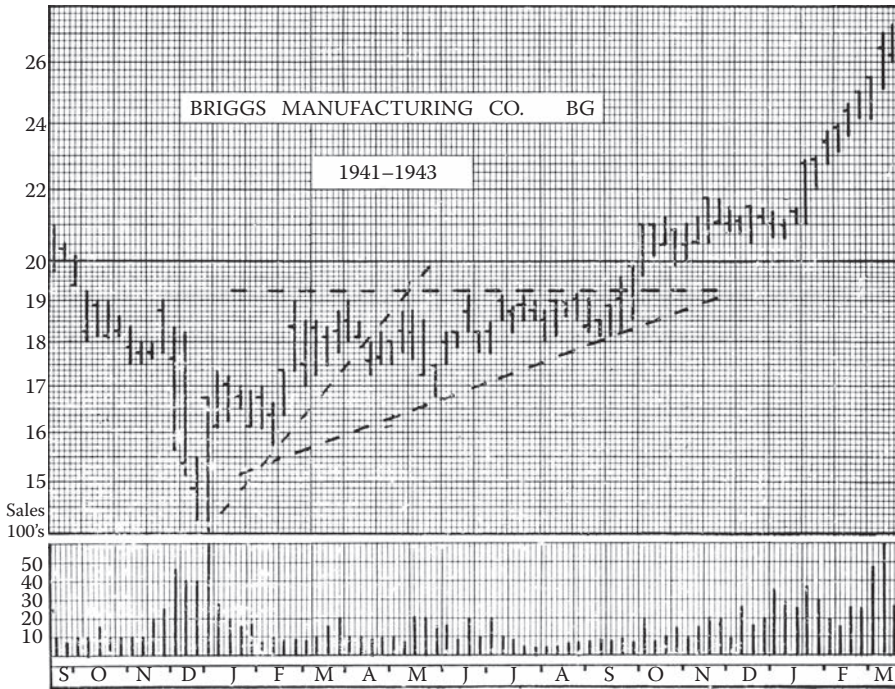


Figure 8.14 A steep recovery from a Panic Bottom (the “Pearl Harbor” selling) flattened out into a fine Ascending Triangle. Note the horizontal Supply Line at 19, above a gradually rising Demand Line. The breakout at the end of September signaled initiation of an advance of some consequence. It turned out to be a Primary Bull Market, which took Briggs up to 53.

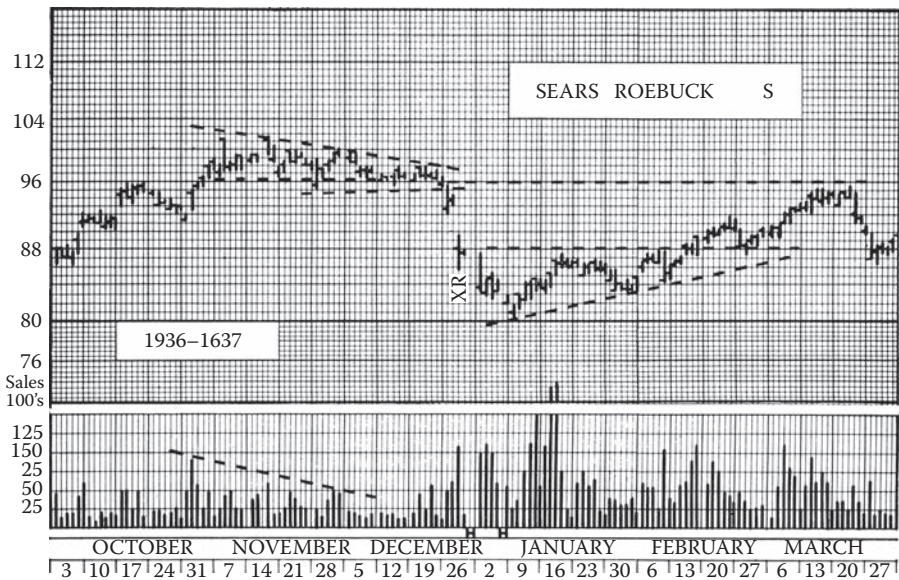


Figure 8.15 Sears’ 1936 Bull Market Top was a Symmetrical Triangle, out of which it declined 15 points. An Ascending Triangle then produced an Intermediate Recovery to the Supply Zone (see [Chapter 13](#)) at the lower side of the top Triangle. Compare this chart with the 1946 Top in [Figure 8.2](#).

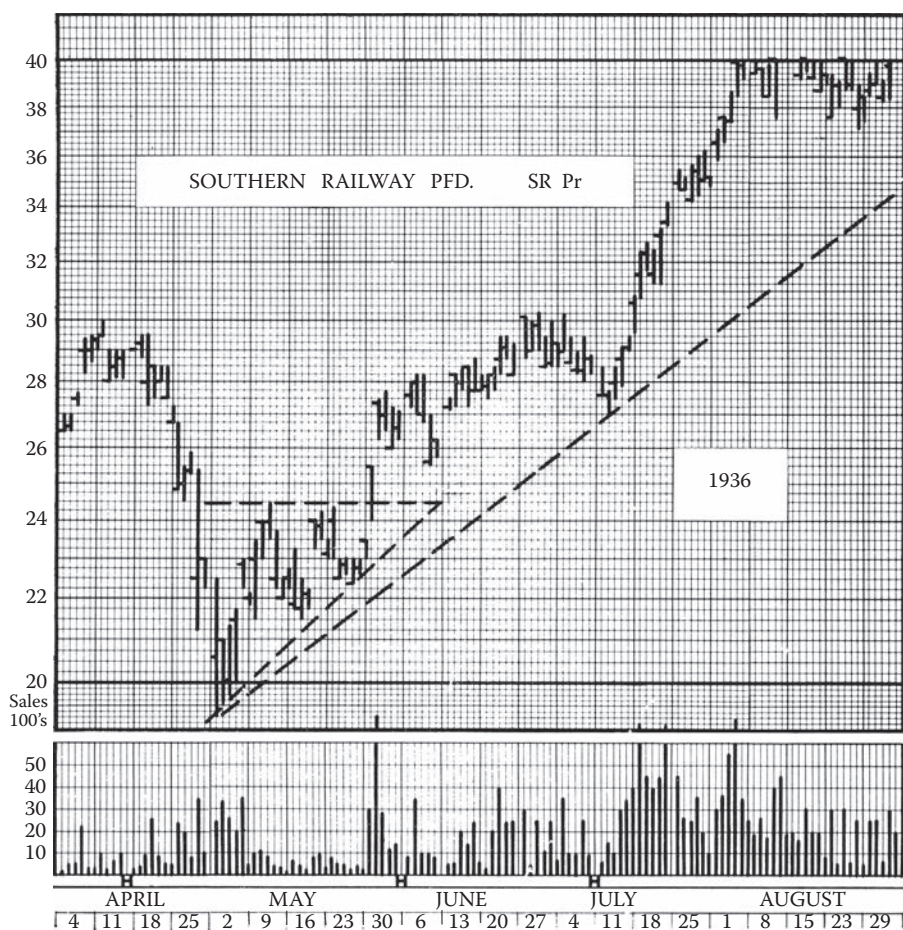


Figure 8.16 An Ascending Triangle at an Intermediate Bottom. This chart runs from April through August 1936. Extreme shrinkage in trading volume during this formation indicated a very strong technical situation.

Another point to remember—and one that does not conform at all to the “Coil” simile—is the farther out into the apex of the Triangle prices push without bursting its boundaries, the less force or power the pattern seems to have. Instead of building up more pressure, it begins to lose its efficacy after a certain stage. The best moves (up or down) seem to ensue when prices break out decisively at a point somewhere between half and three-quarters of the horizontal distance from the base (left-hand end) to the apex. If prices continue to move “sideways” in narrower and narrower fluctuations from day to day after the three-quarter mark is passed, they are quite apt to keep right on to the apex and beyond in a dull drift or ripple that leaves the chart analyst completely at sea. The best thing to do in such cases is go away and look for something more promising elsewhere in your chart book.

A third tricky point is that it becomes necessary sometimes to redraw one or both boundaries of a Triangle before it is finally completed (i.e., before prices break out and move away from it in a decisive fashion). This can happen, for example, when, after the first two Rally Tops have established a down-slanting upper boundary line, the third rally starting from the lower boundary pushes up and *through* the original Top line by a moderate

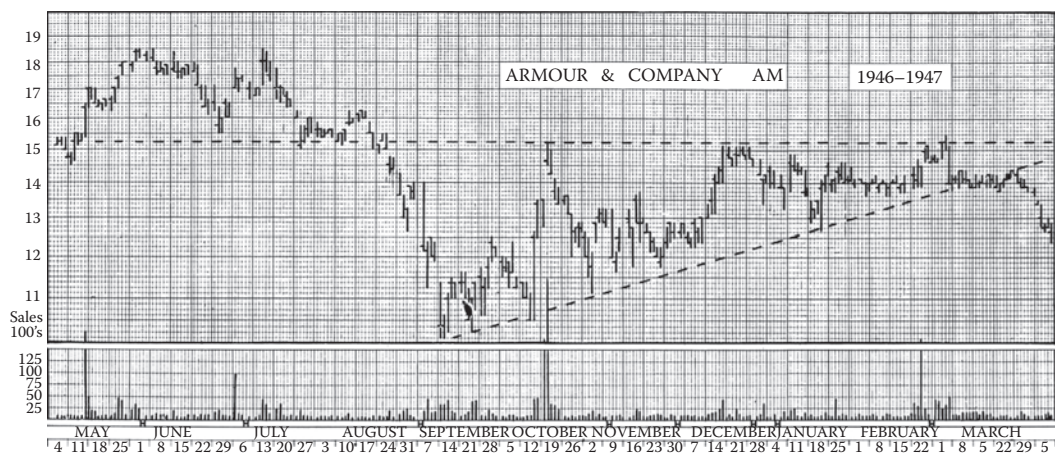


Figure 8.17 One of the early 1947 disappointments (to the Bulls) was the failure of “AM” to break out topside from the long Ascending Triangle depicted above. Here is a case where supply at 15 finally overwhelmed demand. A pattern such as this indicates a potentially strong underlying situation for the long pull. Ordinarily, the consequence of an Ascending Triangle’s “failure” of this sort is the development either of an extended Rectangular base within the general range of the Triangle (in this case, 10 to 15), or formation of a Double Bottom at or near the earlier low (in this case near 10). However, “AM” dropped lower after several more attempts to overcome the Major Supply at the 15 level, which was not substantially penetrated until 1955.

margin and then, without developing a recognizable breakout volume on this move, stops short of surpassing the highest level of the preceding (second) pattern Top. When prices subsequently drop back again into pattern, it is necessary to abandon the original upper boundary line and draw a new one across the highs of the first and third rally tops.

How prices break out of a Symmetrical Triangle

Prices may move out of a Symmetrical Triangle either up or down. There is seldom, if ever, as said above, any clue as to direction until the move has actually started, that is, until prices have broken out of their triangular “area of doubt” in decisive fashion. In a very general way, the precepts laid down for breakouts from Head-and-Shoulders Formations apply here as well. For example, the margin by which prices should close beyond the pattern lines is the same, roughly 3%. It is equally essential that an *upside* break in prices be confirmed by a marked increase in trading volume; lacking volume, do not trust the price achievement. But a *downside* breakout, again as in the case of the Head-and-Shoulders, does not require confirmation by a pickup in activity. As a matter of record, volume does visibly increase in most cases, but in a majority of down breaks, it does not do so to any notable extent until after prices have fallen below the level of the last preceding Minor Bottom within the Triangle, which, as you can see, may be several points lower than the boundary line at the place (date) of the actual breakout.

The curious fact is a downside breakout from a Symmetrical Triangle attended to right from the start by conspicuously heavy volume is much more apt to be a false signal rather than the start of a genuine downtrend that will be worth following. This is particularly true if the break occurs after prices have worked their way well out into the apex of the Triangle; a high volume crack then frequently—we might even say usually—develops into



Figure 8.18 The 1942 Bear Market Bottom in Socony–Vacuum was an unusual Head-and-Shoulders Formation, with the head consisting of an Ascending Triangle. Note the increase in volume on the breakout from the Triangle in July and again on the break through Head-and-Shoulders neckline in October.

a two- or three-day “shakeout,” which quickly reverses itself and is followed by a genuine move in the *up* direction.

All of the above the reader will have undoubtedly found most disconcerting. Here is a pretty technical pattern, and it cannot always be trusted. Unfortunately, Symmetrical Triangles are subject to *false* moves to a far greater extent than the Head-and-Shoulders Formation or any of the other formations we have discussed or will discuss later. Unfortunately, some of these false moves cannot be identified as such until after a commitment has been risked (although good trading tactics should prevent their occasioning much more than a trivial loss). Unfortunately again, even a typical shakeout, such described in the preceding paragraph, may produce a double cross, proceeding right on down in a genuine decline. No technical chart formation is 100% reliable and, of all our present subject, is the worst offender.

But most Symmetrical Triangles—lacking an actual statistical count, our experience would suggest more than two-thirds of them—behave themselves properly, produce no false signals that cannot be spotted before any damage is done. Upside breakouts on high volume may be premature in the sense that prices return to pattern and do some more “work” there before the genuine uptrend gets under way, but they seldom are false. We shall have a little more to say about false signals in this chapter and more later on that we trust will be helpful in developing the experience a trader needs to defend himself against them.

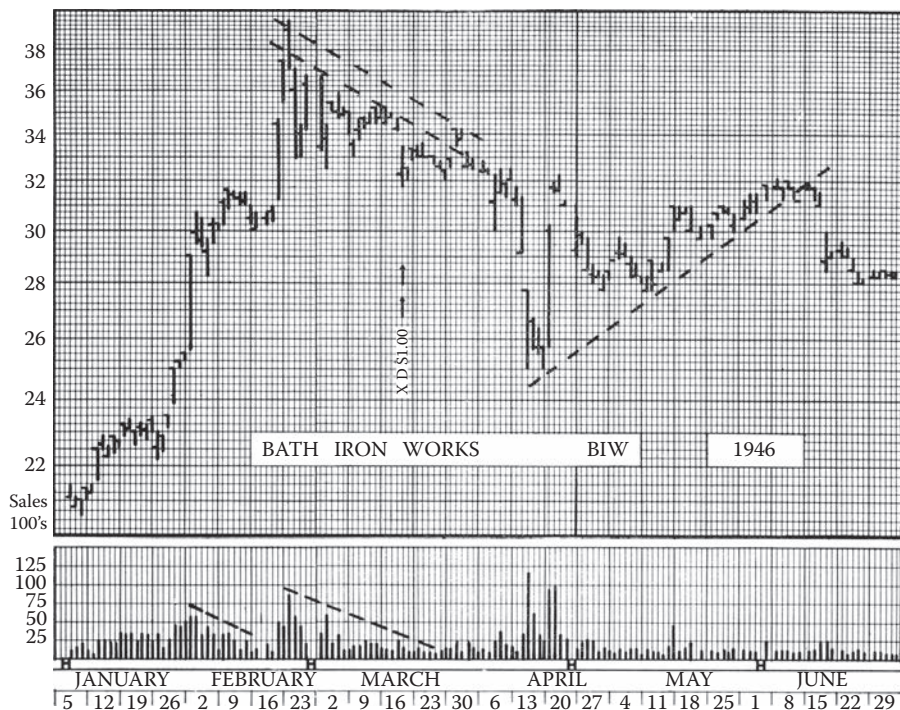


Figure 8.19 Due to a dividend of \$1.00 went ex on March 14, the lower boundary of this Descending Triangle Top in “BIW” had to be dropped 1 point from 33 and redrawn at 32. Despite the added leeway thus afforded, however, the original pattern implications were quickly carried out. Prices pulled back three times to the new lower boundary line of this Triangle on April 4, April 16, and May 31—unusual, but explained by the existence of a strong general market uptrend during this period. Whenever a stock goes ex-dividend during the formation of an Area Pattern of any type, the lines bounding that pattern should immediately be adjusted to the new value by lowering them a distance corresponding to the amount of the dividend.

A typical Triangle development

The several actual chart examples of Symmetrical Triangles that illustrate this chapter will serve, we trust, to give the reader a working acquaintance with their appearance in various manifestations. Yet it may help to clear up some of the more important points if we describe in detail just how a typical pattern develops step by step. Let us suppose you are watching a stock on your charts that has climbed, with only the normal, brief hesitations and inconsequential reactions, from around 20 to 30, 32, 35, and is still moving up. (Let’s hope you bought it at 20!) Lower down, its turnover ran between 300 and 600 shares daily, but now, above 30, it has attracted quite a following, and daily volume has increased to around 1,000. As it approaches 40, activity shoots up to nearly 2,000 shares, the market “churns” between 39 and 40, and then prices begin to drop. As they fall back, you (especially if you own the stock) watch it with some concern, but you know it is hardly likely that it is going to go straight down again to 20; stocks do not act that way. (*EN9: Sometimes they do now, in the twenty-first century.*) If the trend of this issue has actually been reversed, it should, nevertheless, spend some more time and effort around its top levels and make some sort of a Distribution Pattern.

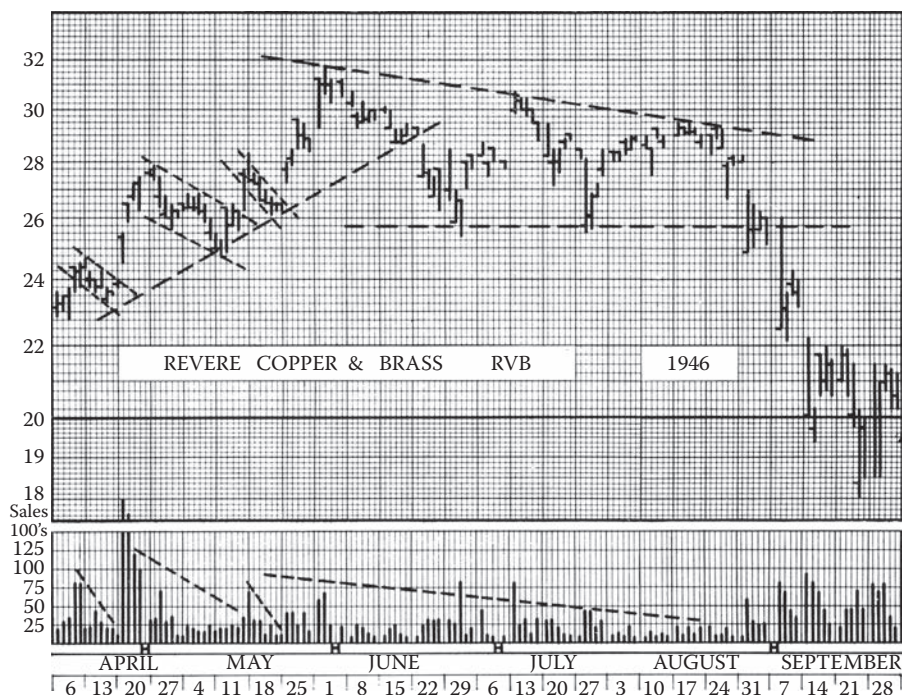


Figure 8.20 On the basis of “fundamentals,” Revere was an attractive holding in 1946, which may account for its reluctance to “give up” when the market generally started downhill in earnest in June of that year. Its fluctuations from mid-May to late August constructed a fine, large Descending Triangle, in which, however, Bearish Volume Signals had already appeared in late June and on July 23. The breakout came (with a wide Breakaway Gap) on August 27. Prices clung to the edge of the pattern for four days and then collapsed. The small formations outlined in April and May are Flags, to be discussed in [Chapter 11](#).

The decline continues for 10 days with the turnover also declining quite appreciably. By the time prices have worked back to 33, volume is running at about 700 shares daily. At 33, it may pick up again for a single day to 800 or 900 shares, but the reaction stops there, and after a day or two, prices begin to climb again with little change in their turnover rate. In eight or nine days, quotations have gotten back into the upper 30s and activity increases and reaches, say, 1,200 shares on the day 39 is reached. Instead of going on to 40 or beyond, however, a new reaction sets in and prices drift back to 37. (Perhaps you will find this growing picture easier to visualize if you pencil its development on a scrap of chart paper.) Now it is evident that a second Top has formed at 39; you can now draw a tentative pattern line (there are other names for this, as we shall see later) on your chart across the two extreme high ranges (not closing prices), which will slant downward from left to right. So far you have only one Bottom point, so you cannot draw lines from that, but this second decline brings out even less trading activity than the first. Volume ebbs to 400 shares and the down move halts at 34; the price track “rounds out” and turns up again; trading is very dull, but it begins to pick up as 36 is reached.

This action defines a second Minor Bottom and now you can draw a Bottom “tangent,” an up-slanting line across the extreme low prices registered on the two reactions, the first at 33 and the second at 34. Your two pattern lines will converge, meeting near the 36H

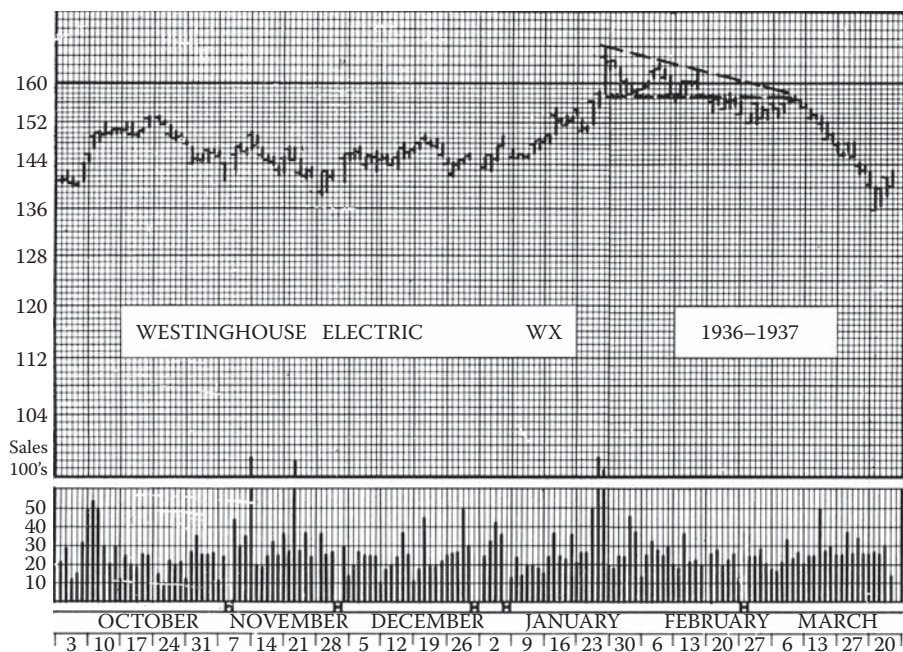


Figure 8.21 The 1937 Bull Market Top in Westinghouse was this Descending Triangle, which started in January and broke on February 15. Prices hung at the lower edge of the Triangle for four days, fell away, and then pulled back to its lower line on March 4 at the time when the general market Averages were making their final Bull highs.

level about four weeks ahead (i.e., to the right) on your chart. You have a Symmetrical Triangle—but you do not know whether prices are going to fall out of it eventually or shake off present doubts and push up in a new advance worth following. You can only watch further developments very closely and be prepared to take whatever action is, in due time, indicated.

The second rally picks up a little in activity, attains a daily turnover of about 700 shares, and pushes up to 38 and on for part of a day to 38 3/4. This nudges through the previously drawn pattern line by perhaps a quarter of a point (because each swing is shorter in points traveled and, accordingly, in duration). But the volume on this Minor Penetration is less than on the preceding Top (at 39) and buying again ebbs. As the price range line falls back to 37 and 36, draw a new upper tangent across the first Top at 40 and the last Top at 38½. There is the suggestion here in this slight “lift” that the balance may be swinging slightly to the demand side, but do not count on it. Pinpoint accuracy is not to be expected; Triangles must be allowed some leeway.

On the third reaction, activity dwindles away to the lowest yet. The up-slanting Bottom boundary will be reached at about the 35 level, if prices continue their present course. It is worth noting now whether they will come all the way down to it this time because if they do not—if their recession is halted half a point or so above it—that action would give some significance to the previous bulge through the upper boundary. But this does not happen; the drift continues right on down to 35, and now volume is running at the rate of only 200 shares daily, less than it ran in the early stages of the original advance above 20. This is a critical spot. The price track flattens out momentarily, turns up feebly, yet keeps hitching

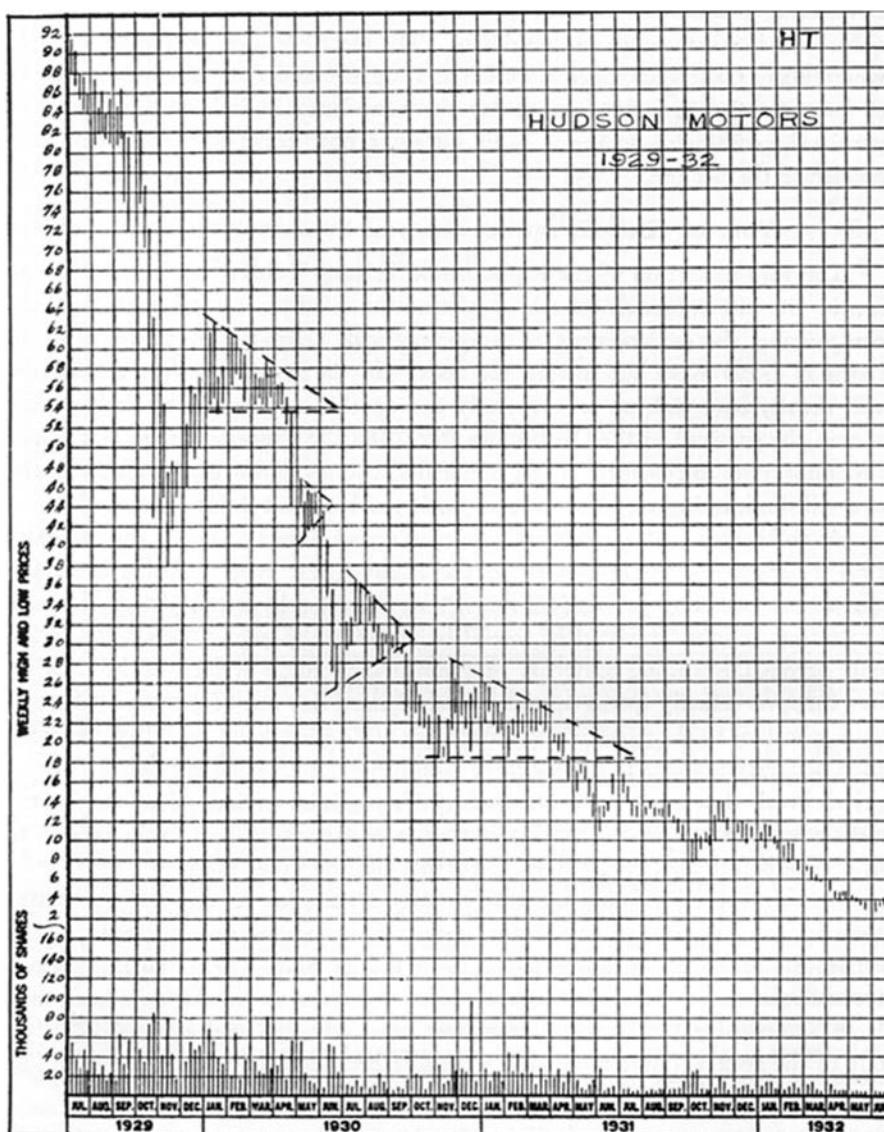


Figure 8.22 A series of Triangles, Symmetrical and Descending, which evolved during the 1929–1932 Bear Market in Hudson Motors. Note that at no time during this decline did anything resembling a Major Bottom appear. Note also how each Triangle’s measuring implications were carried out before any temporary halt or consequential rally developed. Follow your daily charts for the proper timing of your trading operations but keep an eye always on the long-range pictures that evolve on weekly and monthly projections, so as to maintain your perspective on the Major Trend.

up, crosses $36\frac{1}{2}$, picks up activity, reaches the (new) upper Triangle boundary at $37\frac{1}{2}$ and, on the next day, punches through on a turnover of 1,500 shares to close at $39\frac{1}{8}$. This is a breakout; the doubt is resolved and (barring a false move, unlikely at this point) the trend is once again up. Note that it was not necessary for prices to surpass the previous high at 40 to produce this signal—that is one of the interesting things about Symmetrical Triangles.

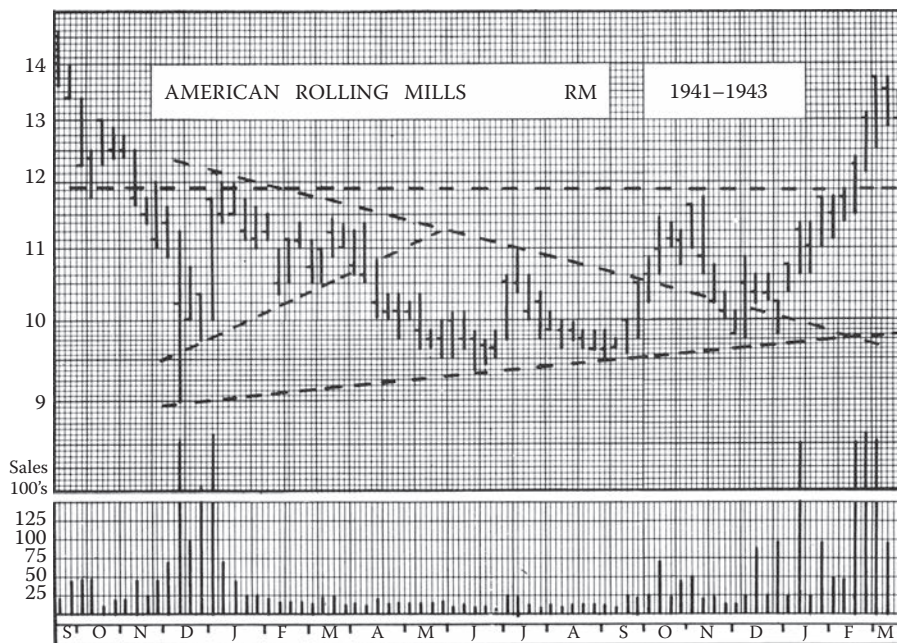


Figure 8.23 The curious, and in its early stages confusing, Major Bottom Formation that American Rolling Mills constructed in 1941–1943. The recovery from the “Pearl Harbor Panic” of 1941 ran into a large Symmetrical Triangle that broke out on the downside in April 1942. The subsequent decline satisfied the measuring requirements of that Triangle, but it did not carry below the December low. The rally of June and reaction of August–September built the whole area out into another and larger Symmetrical Triangle, out of which prices broke on the upside in September. Then the reaction to the apex of the latter, in December 1942, and the following advance built up into a 15-month Ascending Triangle, which constituted the final Major Bottom for a trend that carried prices up eventually to 42 in 1946. The low volume on the June and August–September reactions, the increase on the October markup, and, even more, the January 1943 rise and breakout in February were unmistakably of Major Bullish implications. It takes time, remember, to build a foundation for a Bull Market.

Reversal or Consolidation

We started to discuss Symmetrical Triangles as Reversal Patterns, yet our example has turned out to be, instead, a *Consolidation* Pattern, that is, only a sort of resting stage in a continued uptrend. Well, three out of four of these formations will turn out to be just that; the fourth is the dangerous one (if you own the stock). How would it differ?

The example described might have been a Reversal instead of a Consolidation Formation any time up to the point of the decisive breakthrough to 39. If it had been a typical Reversal, the first change probably would have appeared shortly after the final rally started up from the third Bottom at 35. That rally would have petered out at about $36\frac{1}{2}$, and prices would have started to drift back again. Then, with the activity increasing slightly, the Bottom boundary would be penetrated. As quotations dropped to 34, daily volume might mount to 600 or 700 shares. Any further decline would constitute a down signal, resulting in a further pickup in turnover and an acceleration in the price decline as the stop-loss orders (to be discussed later) spotted under 34 were “touched off.”

Before we leave our typical example, we might make some mention of the post-breakout reactions or Pullbacks that sometimes occur. As in the case of the Head-and-Shoulders

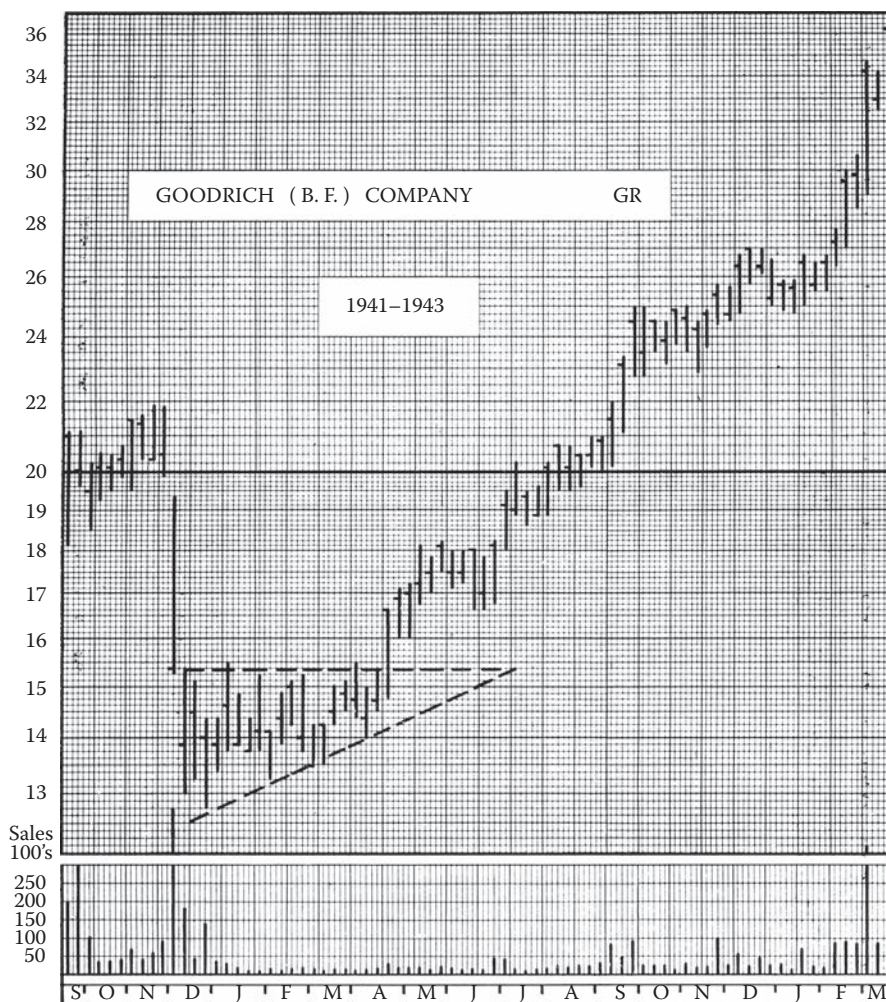


Figure 8.24 A beautifully compact Ascending Triangle that turned out to be the Major Bear-to-Bull Reversal in Goodrich in 1942. The breakout from this pattern (in April) was not signaled by any extraordinary pickup in activity so far as this weekly record shows (but remember significant volume detail is often hard to see in a weekly plotting). The Triangle's measuring implications were carried out by the first upswing, which reached $18\frac{3}{4}$ at the end of May. Supply had to be absorbed in the 18 to 21 range (refer to this chart when you study Support and Resistance in [Chapter 13](#)), but a Major Up Signal was given in September when prices erupted through that zone with a conspicuous increase in trading volume.

Formation, the initial breakout move from a Symmetrical Triangle may halt before prices are carried very far away from the pattern and be followed by a Minor Reaction, usually lasting only two or three days, which will carry quotations back to the nearest pattern boundary. Thus, in our first example in which the break, when it came, took our stock up through the top side to $39\frac{1}{2}$, the next day might have seen a push on to 40, and then prices might have backed off again in a couple of days of decreased activity to $37\frac{1}{2}$ or 38. The up-move would then normally be resumed with greater vigor. Downside breakouts are sometimes followed in much the same manner by pullbacks to the lower boundary



Figure 8.25 A real-time chart from prophet.net. The volume blowout in July 2002 drew attention to eBay and the sloping line was drawn at that time. Although the lines are sloppy and the pattern is ragged, it looked at the time like a Descending Triangle with all its implications. Nevertheless, when it broke out of the pattern on emphatic volume in October 2003 the handwriting was on the wall. eBay was for real. So, what's for real? It could really make money, not just capture free eyeballs, like its internet brethren and sistern. It actually performed a service of economic benefit to many people, unlike the internet fantasy follies. See [Figure 10.26](#) for a longer perspective on eBay. Lessons for the attentive: power of trendlines; alarm-clock nature of unusual volume; not believing any forecast. Forecast in this case would have been for a downtrend if, as it seemed, the pattern was a descending triangle.

of the pattern, after which the decline is resumed with an increase in volume. However, these post-breakout reactions occur less often with Triangles than they do with Head-and-Shoulders Patterns.

Another matter we might take up before going on to study the next formation is the *rationale* of the Symmetrical Triangle. It may help to fix its characteristics in mind if we try to deduce what sequence of events might typically produce it. Of course, any effort of this sort can result only in a gross oversimplification, which will not fit all of the Triangle's various manifestations, but it is an interesting mental speculation—and one not without benefit to our understanding of the general theory of chart formations. Let us turn back again to our typical example. We started with a stock that ran up rather steadily from around 20 to 40 and then reacted. It is fairly obvious what happened at 40: many investors had substantial paper profits, approaching 100% at that price. (A "round figure" such as 40, 50, 75, or 100

is apt to become a sort of mental profit objective and, hence, bring in increased selling.) Some of them were ready to cash in and did so, temporarily swinging the technical balance from demand to supply; they sold less freely, of course, as prices receded. Other would-be investors had been attracted to the stock, but too late to “get aboard” below 30. Unwilling to “chase” it up to 40, they welcomed the reaction and, by the time prices had dropped back to 33, enough of them were ready to buy to swing the balance back again to the demand side of the equation.

Watching the ensuing rally, however, were the owners of the stock who had failed to grab their profits near 40 on the previous advance and had made up their minds to be a little less greedy if given a second opportunity. Their offerings began to come in above 37, say, and were sufficiently copious at 39 to stem the advance at that level. Behind the scenes, we can imagine this process repeated again and again, with new money constantly coming in and meeting supply from owners increasingly anxious to cinch their profits. Eventually, the offerings of the latter are all absorbed, or perhaps withdrawn, and then professionals, as well as hopeful investors, suddenly discover there is no stock ahead on the books and rush to buy results.

Since the advance (or decline) that follows the completion of a Symmetrical Triangle usually runs to worthwhile trading proportions (we shall discuss measuring implications later), there would be an evident advantage to the trader who could tell in advance of the breakout which way prices were going to move. The odds are, as already stated, the new move will proceed in the same direction as the one before the Triangle’s formation. These odds are greatest, of course, in the *early* stages of either a Primary Bull or Bear Market with the chances of Reversal increasing as those Major Trends mature. Nevertheless, the charts of other stocks often furnish valuable collateral evidence; thus, if at the same time you detect a Symmetrical Triangle in the process of formation in “PDQ,” a majority of your charts are showing Saucers or Head-and-Shoulders Bottoms or Ascending Triangles or some other pattern of typically Bullish import, it is a fair assumption that your Symmetrical Triangle will break out topside. There are times when advance indications of this sort are strong enough to justify taking a position on it.

The Right-Angle Triangles

We mentioned *Ascending Triangles* in the preceding paragraph. The Ascending and Descending are the Bullish and Bearish manifestations, respectively, of our next class of patterns, the *Right-Angle Triangles*. In many respects, in most in fact, they perform like their Symmetrical cousins, but with this very gratifying difference: they give advance notice of their intentions. Hence, their names, for the supposition always is that prices will ascend out of the Ascending form and descend from the Descending form.

The Symmetrical Triangles, as we have seen, are constructed of a series of successively narrower price fluctuations that can be approximately bounded across their Tops by a down-sloping line and across their Bottoms by an up-sloping line. Right-Angle Triangles are distinguished by the fact that one of their boundaries is practically horizontal, whereas the other slants toward it. If the top line is horizontal and the bottom line slopes up to meet it somewhere out to the right of the chart (at the apex), the Triangle is of the *Ascending* persuasion. If the bottom line is horizontal and the top line slopes down, the Triangle is *Descending*.

These formations are perfectly logical and easy to explain. The Ascending Triangle, for instance, pictures in the simplest and most normal form what happens when a growing demand for a certain stock meets a large block of shares for sale at a fixed price. If the demand

continues, the supply being distributed at that price will eventually be entirely absorbed by new owners looking for still higher levels, and prices will then advance rapidly. A typical Ascending Pattern starts to develop in much the same way as the “ideal” Symmetrical Triangle previously described, with an advance in our certain stock from 20 to 40 at which point sufficient supply suddenly appears on the market to fill the orders of all buyers and produce a reaction. Sensing the temporary satiation of demand, some owners may dump their holdings on the decline, but offerings are soon exhausted as prices drop back to, say, 34, and renewed demand then stimulates a new rally. This runs into supply again at 40, and again, all buyers are accommodated at that level. The second recession, however, carries quotation down only to 36 before another up-move develops. But the pool or inside group that is distributing at 40 still has some of its holdings left to sell, so it may take more time, another backing away and another attack at the 40 line before the supply there is exhausted and the trend can push along up.

A planned distribution

This type of market action evidences a planned campaign by owners of a fairly large quantity of shares to liquidate at a predetermined price. It contains little of the element of doubt that we mentioned as characterizing the Symmetrical Pattern. So long as demand persists, the distributing pool knows it can ultimately cash in its entire line at 40 and need not sell for less. It is equally apparent, so long as demand keeps coming in at higher and higher levels that, once the supply at 40 has all been absorbed, the market will advance rapidly and easily. As soon as prices break out above 40, those who took over the supply at that figure will feel their judgment has been vindicated and will not be disposed to sell until they, in turn, can register a good profit.

The crux of the matter is contained in the two preceding sentences. Demand must continue to come in at higher and higher levels, otherwise, our formation will cease to be an Ascending Triangle. Plus, the overhead supply must eventually be absorbed, permitting an upside breakout. If demand begins to falter any time before the Supply Line (horizontal Top boundary) has been broken through, the ensuing reaction may drop prices down “out of pattern,” and then the chart technician is faced with the necessity of revising his chart picture. One might think that such a development, blasting the earlier promise of the chart, would occur fairly often, but, as a matter of experience, it is surprisingly rare. We say “surprisingly” because it is obvious that in many cases of Ascending Triangle development, the group selling creates its Top boundary or Supply Line must believe that level to be just about as high as the stock has any right to go. As holders of a large enough block to influence the market for several weeks, sometimes months, their judgment is hardly to be scorned. Yet, once it becomes evident the lower boundary or Demand Line is slanting *up*, the odds are certainly somewhere in the neighborhood of 9–1 that the new buyers will eventually have the best of it.

On occasion, the third reaction or fourth reaction within an Ascending Triangle Formation will break down through the previously established up-slanting Demand Line (lower boundary), but it will be halted at the same level as the previous reaction. The pattern from there on is apt to develop as a *Rectangle*, a formation to be discussed in our next chapter, and should be treated as such. (The *tactics* of trading on Ascending and Descending Triangles, including protection against the rare cases of collapse, will be taken up in Section II.)

Descending Triangles

Descending Triangles have a horizontal lower boundary or Demand Line and a down-sloping upper boundary or Supply Line. It is evident they are created by reverse market

conditions than those of the Ascending Pattern; however, their implications are equally strong and their failures equally rare. Development of a Descending Formation hinges on a campaign by a group or syndicate (often an investment trust) (*EN9: or Mutual Fund or a takeover group*) to acquire a large block of shares in a certain company at a predetermined price below the market. Their orders are placed and allowed to stand until executed at that level. If the successive rallies therefrom, which their buying generates, are stifled by new supplies of stock for sale at lower and lower levels (thus creating the typical Descending picture on the chart), orders to buy are eventually all filled and quotations break through and on down. The mere breaking of the critical line, which many traders have seen function as a support under the market for a more or less extended period, often shakes the confidence of holders who had not previously considered selling. Their offerings now come on the market and accelerate the decline.

Volume characteristics same as the Symmetrical type

The volume section of the Right-Angle Triangle's chart requires little comment. It will ordinarily present a picture practically identical with that accompanying the development of a Symmetrical Triangle. Activity tends to lessen as prices move out toward the apex. In the Ascending Formation, there will usually be a pickup on each rally and an ebb in turnover on each decline within the pattern; in the Descending Formation, the opposite is true, but sometimes it is not quite so evident. These Minor fluctuations do not affect the overall diminishing trend of volume until the breakout point is reached.

As to breakouts, practically everything discussed about the Symmetrical Triangle will apply as well to the Right-Angle type. Upside breakouts (from an Ascending Pattern, of course) are attended by a conspicuous increase in trading volume; if not, they should be treated as suspect. Downside breakouts (from Descending Patterns) may not evince much of a pickup in activity, but turnover usually speeds up the second or third day out of pattern. Throwback reactions to the pattern's boundary line after a breakout are fairly common; their occurrence seems to depend largely on general market conditions. Thus, if prices break down out of a Descending Triangle in an individual stock at a time when the rest of the market is firm, a Pullback Rally is fairly certain to intervene before any extensive further decline takes place.

This chart, and a number that have preceded it, illustrate an important point for the market technician that may well be restated here: When a large number of individual issues, after an extensive advance, make well-defined Reversal Patterns of plainly Bearish import, break down out of them, and then succeed only in pulling back no farther than their lower boundaries or "Resistance Lines" at a time when the Averages are going on up to new highs, the whole market is in a dangerous condition and a Major Downturn is imminent. Divergences of this particular sort between many important issues and the Averages seldom develop at Intermediate Turns. The warning is particularly pointed when stocks of the caliber of Westinghouse, DuPont, General Motors, and others fail to "confirm" new highs in the Averages.

Refer back to [Figures 6.3, 6.6, 6.9, and 8.15](#), for example, and compare the "timing" in those with the trend of the Averages for the same periods. The Saucer-Like Reaction Pattern of October to January in the above chart analyzes into a Complex Head-and-Shoulders Consolidation, a formation that will be taken up in [Chapter 11](#).

Incidentally, "WX" continued on down to 130 in April 1937, made a Rectangle base there, and recovered to 158 (see above Descending Triangle) in August and then fell to 88 in November. Compare this daily chart with the monthly chart of "WX" for 1935 to 1938 in [Figure 15.15](#).

Good, reliable breakouts from Right-Angle Triangles usually occur at about the same stage of pattern completion as they do in Symmetrical Triangles. The earlier the breakout, the less apt it is to be a false move (although false moves from Right-Angle Formations are considerably rarer, it should be noted, than from Symmetrical). In those infrequent cases when prices “squeeze” right on out of the apex without producing a definite breakout, the pattern seems to lose much of its power.

Measuring implications of Triangles

In [Chapter 6](#), we stated a minimum measuring rule to apply to price movements developing from a Head-and-Shoulders Formation, and we can lay down a somewhat similar rule for Triangles—one that applies to both the Symmetrical and the Right-Angle species. The method of deriving the Triangle formula is not easy to explain in words, but the reader can familiarize himself with it quickly by studying its application on several of the actual examples that illustrate this chapter. Assuming we are dealing with an up-movement (upside breakout), draw from the Top of the first rally that initiated the pattern (in other words, from its upper left-hand corner) a line parallel to the Bottom boundary. This line will slope up away from the pattern to the right. Prices may be expected to climb until they reach this line. Also, as a rule, they will climb, following their breakout from the pattern, at about the same angle or rate as characterized their trend before entering the pattern. This principle permits us to arrive at an approximate time and level for them to attain the measuring line. The same rules apply (but measuring down, of course, from the lower left corner) to a descending move.

Although application of the above formula does afford a fair estimate of the extent of move to be expected from a Triangle, it is neither as definite nor as reliable as the Head-and-Shoulders formula. Do not forget the important qualification that the Triangle has somehow lost a part of its potential strength if the breakout is delayed until prices are crowded into the apex.

Triangles on weekly and monthly charts

We have seen in preceding studies how Head-and-Shoulders Formations may appear on the long-range (weekly or monthly) charts and will have importance commensurate with their size. Triangles also may develop on weekly charts with their implications usually clear and dependable, but the coarse Triangular Patterns—which can be found on graphs of monthly price ranges, especially the great, loose convergences that take years to complete—had better be dismissed as without useful significance.

Other Triangular formations

There are other patterns of price consolidation or congestion that can be bounded by converging lines and might, therefore, be classified as Triangles. However, they deviate from the true Triangles of this chapter so markedly in one or more important respects that they are best treated under other headings elsewhere, such as Flags, Pennants, and Wedges. Still another group of chart patterns develops between *diverging* boundary lines, on which account they have sometimes been called Inverted Triangles. But their causes, characteristics, and forecasting implications are so radically different that we have chosen to rename them Broadening Formations and discuss them in a later chapter.

The reader may have become dismayed at this point by our frequent recourse to such qualifying adverbs as *usually*, *ordinarily*, and the like. It cannot be avoided if one wishes to present a true picture of what actually happens. No two chart patterns are ever precisely alike; no two market trends develop in quite the same way. History repeats itself in the stock market, but never exactly. Nevertheless, the investor who familiarizes himself with the historical pattern, with the normal market action, and refuses to be tempted into a commitment in the belief that “this time will be different,” will be far and away ahead of the fellow who looks for the exception rather than the rule.

The beginner is proverbially lucky. He will find Triangles, Head-and-Shoulders, or other significant patterns, one after the other, on his charts, watch them develop, and see them carry through with profitable moves according to rule, until the exception comes along—or he will overlook the larger picture while concentrating on some Minor Pattern development—and suddenly awake to the fact he is caught in a very bad play. Hence, we constantly emphasize the nonconforming movements. Our words of qualification are necessary because technical analysis of market action is not an exact science and never will be.



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More important Reversal Patterns

The Rectangles, Double and Triple Tops

The Triangular Price Formations, which we examined in [Chapter 8](#), can be either *Reversal* or *Consolidation* Patterns. In the case of the Right-Angle Triangles, we know as soon as they have attained recognizable form in which direction the trend will (or should) proceed. With the Symmetrical Triangles, we have no way of knowing whether they point up or down until prices finally break away from them, although the odds are, as we have seen, the previous trend will be continued rather than reversed. In this respect, and in many others, our next class of technical formations, the *Rectangles*, resemble the Symmetrical Triangles. There are, in fact, so many points of similarity between them that we can forego any long and detailed discussion. (For illustrations in this chapter, see [Figures 9.1](#) through [9.18](#).)

A *Rectangle* consists of a series of sideways price fluctuations, a “trading area,” as it is sometimes called, which can be bounded both top and bottom by *horizontal* lines. A glance at any one of the examples that illustrate these pages will show how it got its name. On rare occasions, you may discover a chart pattern whose upper and lower boundary lines are parallel but either slightly down-sloping or up-sloping. So long as their departure from the horizontal is trivial, they may be treated as Rectangles. You will also find, on occasion, patterns whose boundaries, while nearly horizontal, tend somewhat to converge. These may be considered Rectangles or Symmetrical Triangles; it does not matter which because the “prognosis” will be the same in either case.

If you will give a quick mental review also to the Head-and-Shoulders, the Complex, and the Rounding types of formations, you will see how, if you disregard the volume part of their charts, any one of these patterns might merge or grade into a Rectangle. As a matter of fact, however, you will seldom be left in doubt as to proper classification because the circumstances of trading, the type of buying and selling, which produce Rectangles are different, which is usually apparent.

We characterized the Symmetrical Triangle as a “picture of doubt.” The Rectangle might, with even greater propriety, be called a picture of conflict. Of course, any fairly compact price formation represents conflict in the supply–demand sense. A Head-and-Shoulders Top, for example, portrays a conflict between “strong” sellers and “weak” buyers with the outcome already clearly seen before the combat has ended. But a Rectangle defines a contest between two groups of approximately equal strength—between owners of the stock who wish to dispose of their shares at a certain price and others who wish to accumulate the stock at a certain lower figure. They bat the ball back and forth (up and down, that is) between them until ultimately, and usually quite suddenly, one team is exhausted (or changes its mind) and the other proceeds to knock the ball out of the lot. Nobody (often, not even the contestants themselves) can tell who is going to win until one line or the other is decisively broken.

We speak of two groups operating in the development of a rectangular trading area because, under present-day conditions, that is what is usually the fact behind the scenes. This, it should be noted, does not imply “manipulation” in any invidious sense. An investment trust or an estate or, in some cases, an individual heavy stockholder has good

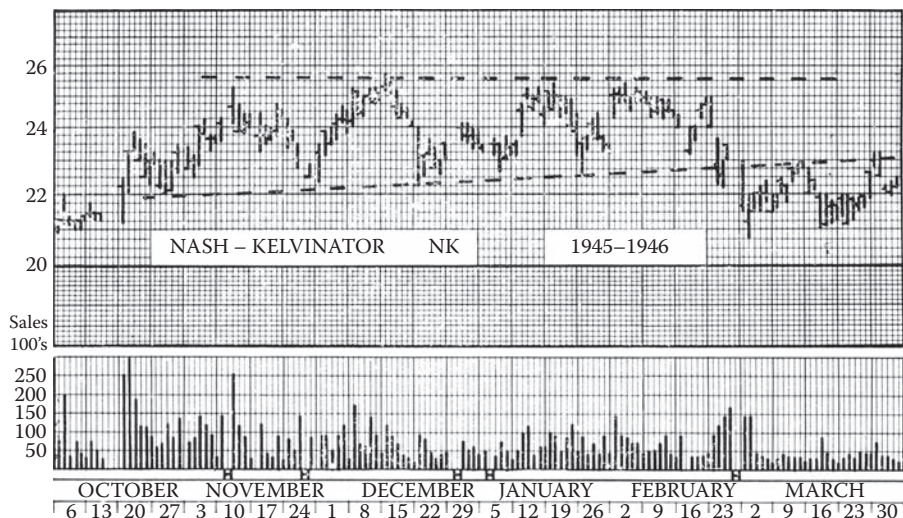


Figure 9.1 Although its Bottom boundary had a slight tendency to “lift,” the formation that put a Top on Nash–Kelvinator in 1946 was an unmistakable four-month distribution Rectangle. Long and rather loose Rectangular Patterns of the type shown here may not evince constantly and noticeably diminishing volume, but note, nevertheless, the general, although irregular, downtrend in volume from mid-October to mid-February.

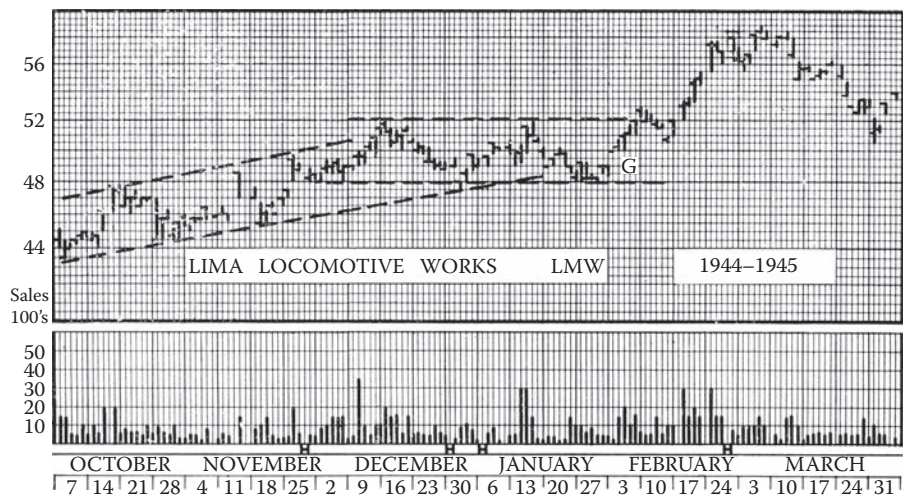


Figure 9.2 Consolidation Rectangles in uptrends have been less common in recent years than during the 1920s and early 1930s. The large price gap (G) in this example is of the “last in pattern” type, which we shall come to in [Chapter 12](#). When a gap within a pattern area is followed by breakout from that pattern, as in this case, the gap is infrequently closed quickly.

and sufficient reasons for selling at the top price (the “Supply Line” of the Rectangle) with no intent to mislead the public. Another investment trust or a group of insiders interested in the company may have equally good and, from their point of view, wise reasons for buying at the bottom price (“Demand Line”). Such are the forces at work in the market at the start of most Rectangular Chart Patterns, but if the “spread” between top and bottom

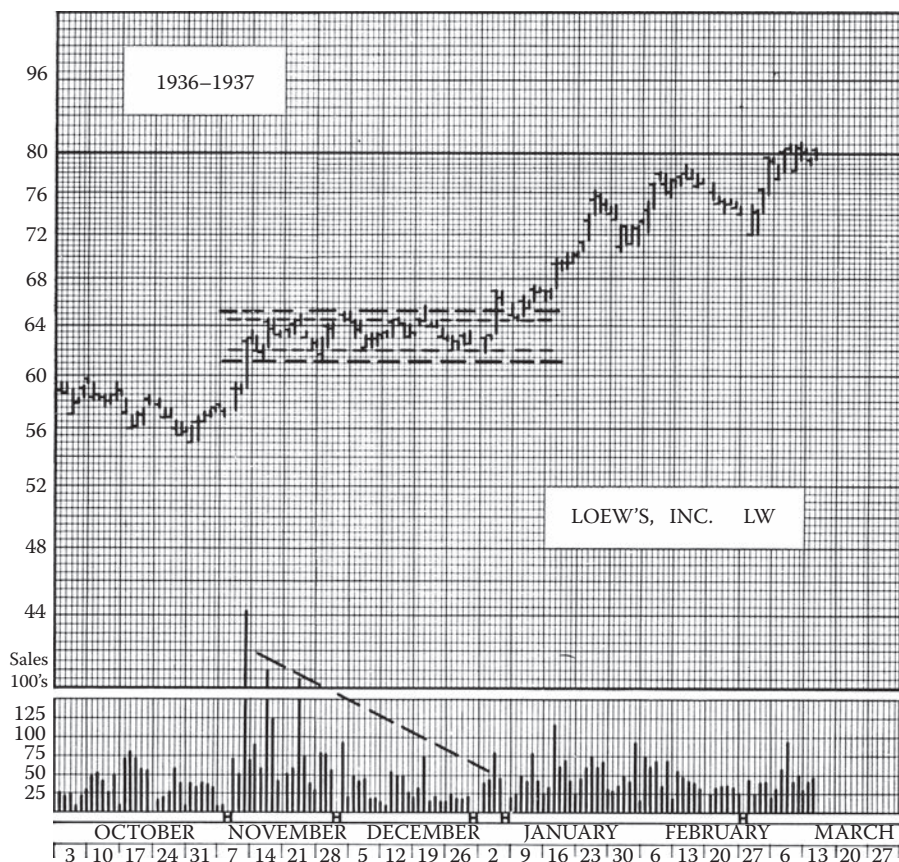


Figure 9.3 A perfect example of Consolidation Rectangle that formed in Loew's near the end of the 1932–1937 Bull Market. In this case, a large block of “inside” stock was distributed at 64 to 65 but taken over around 62 by other investors who had the satisfaction of seeing it go on up to 87 the following August. Note the Throwback following breakout in January.

lines is wide enough (say 8%–10% of the market value of the stock), the situation may quickly attract a following from quick-turn scalpers and the professional element. Thus, a syndicate holding a large block of U.S. Steel may decide to liquidate at 76, whereas another group decides to invest heavily in “Steel” at 69. The price of X will naturally fluctuate for a time between those two levels. Traders, seeing this, will try to ride the play, buying at 69 and selling at 76 (perhaps also selling short at 76 and covering at 69). Their operations will tend to accentuate or extend the Rectangle, although the number of shares involved in such parasitic trading is seldom great enough to affect the final outcome. As a matter of fact, this type of trading *inside* a Rectangle can be quite profitable at times, especially if protected by judicious stops (see Section II).

Pool operations

In times past, before the U.S. Securities and Exchange Commission (SEC) outlawed the practice, Rectangles were frequently created by the well-organized operations of a single “pool” or syndicate. Such a pool might undertake to accumulate a large block of

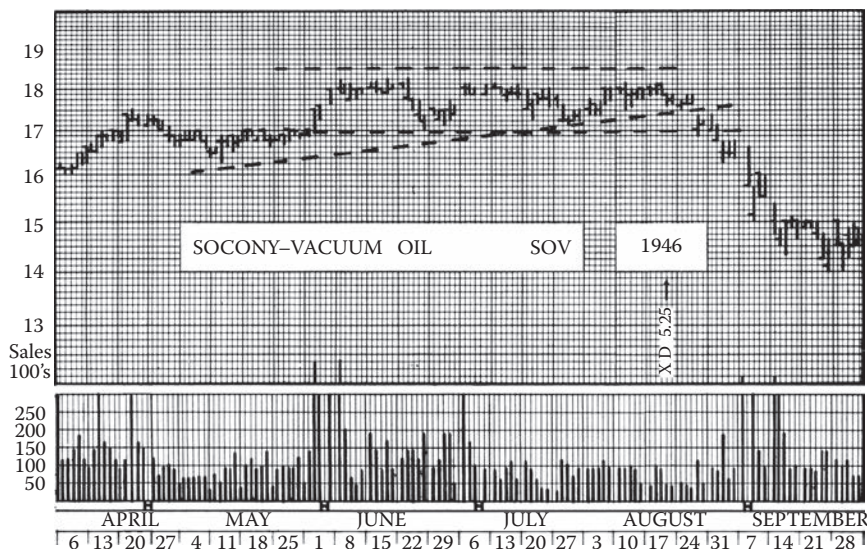


Figure 9.4 Here is a Rectangle in Socony-Vacuum, a low-priced stock characterized by fluctuations within a narrow range. After reaching a high of 18 in December 1945, it fell back to 15 and then rallied in mid-1946 as shown above. In late August, prices broke down through an Intermediate Trendline (see [Chapter 14](#)) and four days later fell out of the Rectangle. This formation, in conjunction with the earlier and higher Top, implied lower levels for “SOV” for some time to come. See also comment under [Figure 9.5](#).

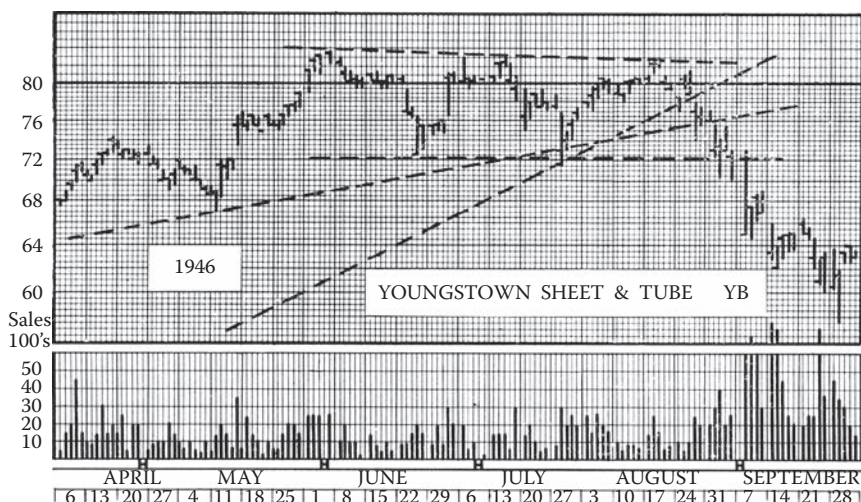


Figure 9.5 Another long, loose Rectangle of Major Reversal implications, somewhat similar to that pictured in [Figure 9.1](#). Both an Intermediate and Major Up Trendline (to be discussed later) were decisively punctured by “YB” in August, just before its Rectangle broke down. Under [Figure 8.21](#), we discussed one sort of warning of a Primary Downturn that may be derived from the comparison of individual stock charts with the Averages. Here is another hint: the better-grade steels and oils (see “SOV,” [Figure 9.4](#)) frequently hold up, or make stronger Secondary Recoveries, after the Averages have turned down at Major Tops. The Street sometimes speaks of “distribution under cover of strength in the steels.”

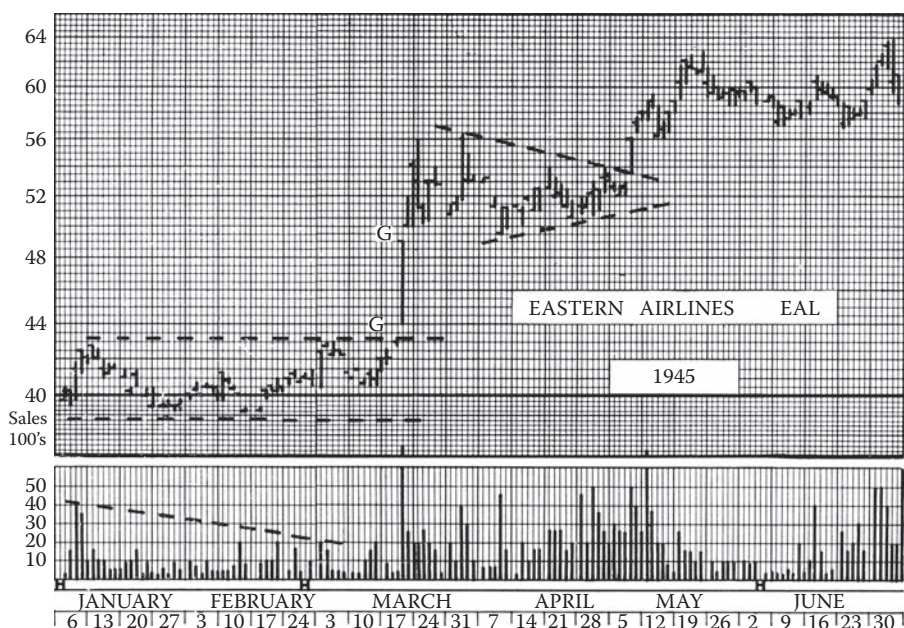


Figure 9.6 The Rectangle in early 1945 in “EAL” was actually the final stage of a nearly two-year Consolidation in the rise, which started around 17 in 1942 and ended above 125 in December 1945. G, G mark gaps (see [Chapter 12](#)), the first a Breakaway and the second a Measuring Gap, which marked the probable objective of the move as 55. When prices reached that level, another Consolidation developed, a Symmetrical Triangle. Neither of these gaps was “closed” during the following two years.

stock in a certain company with a view to marking it up and taking profits when some piece of good news, of which they had inside knowledge, eventually became public. To acquire the desired “line,” they would find it necessary first to shake out shares held by other traders and uninformed investors. They might start their campaign by suddenly selling short a few hundred shares to quench any current demand and start a reaction. Then, on that reaction to the previously determined accumulation level, they would start to buy, scattering their orders carefully and avoiding any publicity. Their buying would, sooner or later, engender a rally, but then they would “plant” rumors around the boardrooms to the effect that such-and-such insiders were selling, or that a projected merger was being called off, or a dividend would have to be passed, and, if necessary, they would ostentatiously let out a few of their own recently purchased shares to give color to the rumor. The process might be repeated several times with the “pool” gradually securing more and more shares on balance until, finally, its intended line is completed or could not shake out more of the floating supply. Often, what was going on was fairly evident to the alert chartist back in the 1920s even before the operation was concluded, and perfectly evident, of course, as soon as prices broke out topside from their Rectangle.

But such tactics are no longer permitted. “Wash sales” are strictly condemned; the constant policing of all exchange transactions and prompt investigation by the SEC of any suspicious news or activity in a stock effectually deters the blatant “pool” manipulations of previous years. This probably is the chief reason why Rectangles are nowhere near so common on the charts of the 1950s as they were in the 1920s. (EN: Not uncommon in the 2000s.)

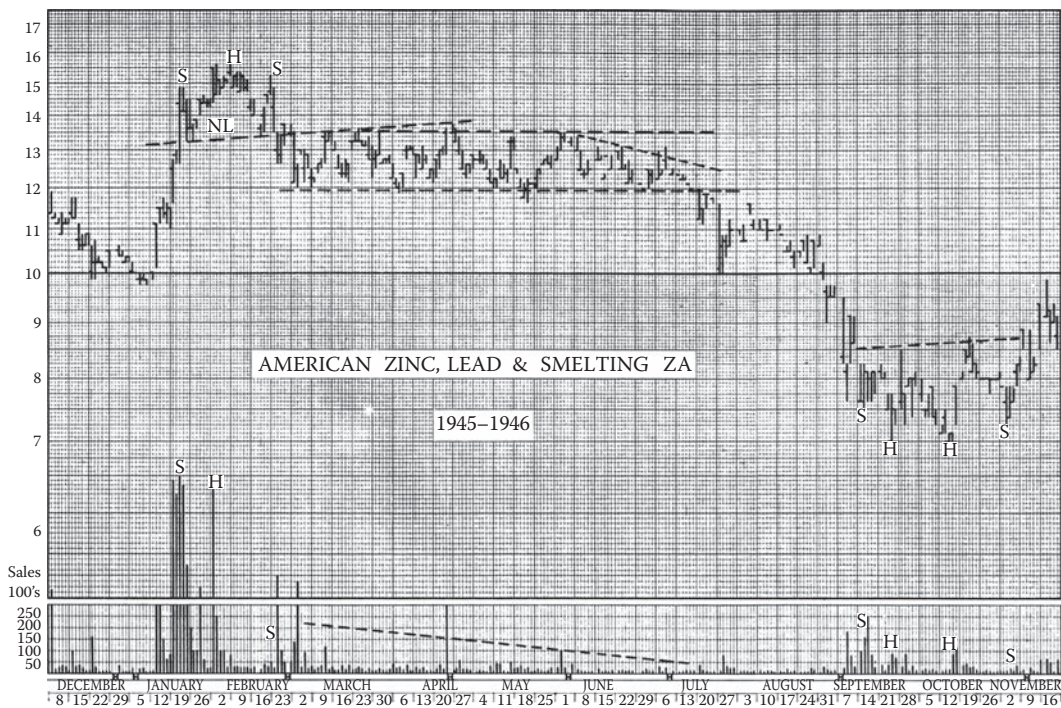


Figure 9.7 An extraordinary, fine, long Rectangle that developed after “ZA” had broken down out of a Head-and-Shoulders Top in February 1946. A perfect opportunity to sell this stock short was given by its Pullback of July 17–18 after prices had broken out of the Rectangle on the 15th. The Multiple Head-and-Shoulders Bottom that it subsequently made from September to November produced a recovery to 11, but prices later fell to 6 in early 1947.

Perhaps we can clear up various details of the Rectangle formation most quickly and easily by comparison with that most nearly related chart pattern, the Symmetrical Triangle, as follows:

- **Volume**—Follows the same rules as in the Triangles, gradually diminishing as the Rectangle lengthens. Any contrary development, unless it be a momentary news flurry, is suspect.
- **Breakouts**—Here also the same rules apply as with Triangles. Review volume requirements, margin of penetration, and so on thereunder.
- **False moves**—Much less frequent from Rectangles than from Symmetrical Triangles. A clearly defined Rectangle is, in fact, almost as reliable as a Head-and-Shoulders, although not as powerful in its implications.
- **Premature breakouts**—Slightly more frequent, perhaps, from Rectangles than from Triangles.

(**Note:** Both *false moves* and *premature breakouts*, in the sense in which we employ these terms, are indistinguishable at the time they occur from genuine breakouts. Following both false and premature breaks, prices return inside the pattern. But, in the case of a *false move*, the trend ultimately proceeds out of pattern in the *opposite* direction, while in the case of the *premature move*, the trend finally breaks out again and proceeds in the *same* direction.)

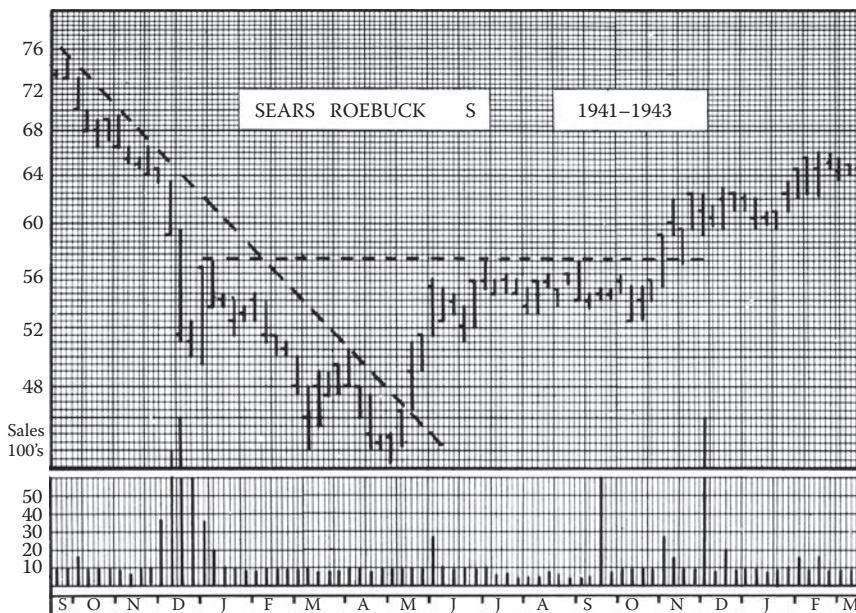


Figure 9.8 In this weekly chart showing Sears Roebuck's 1942 Bear Market Bottom, a Consolidation Rectangle (June to November) forms the right shoulder of a large "unbalanced" Double Head-and-Shoulders Pattern.

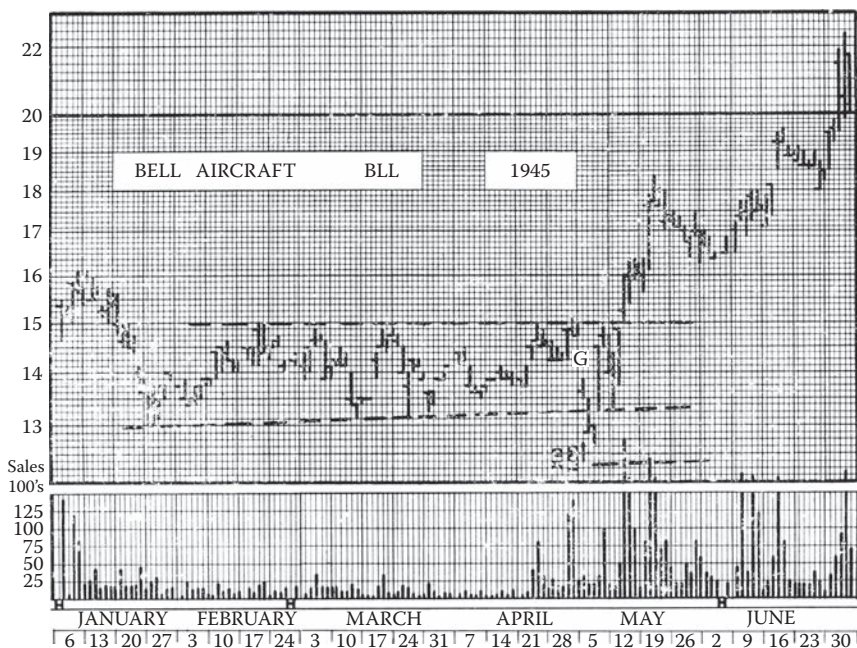


Figure 9.9 After advancing to 16 in January 1945, "BLL" dropped back to 13 and then constructed a 15-week Rectangle. Note that the down gap (G) on April 30 was caused by a \$1.00 dividend going off. The revised bottom line of the pattern, drawn \$1.00 lower, was not violated.

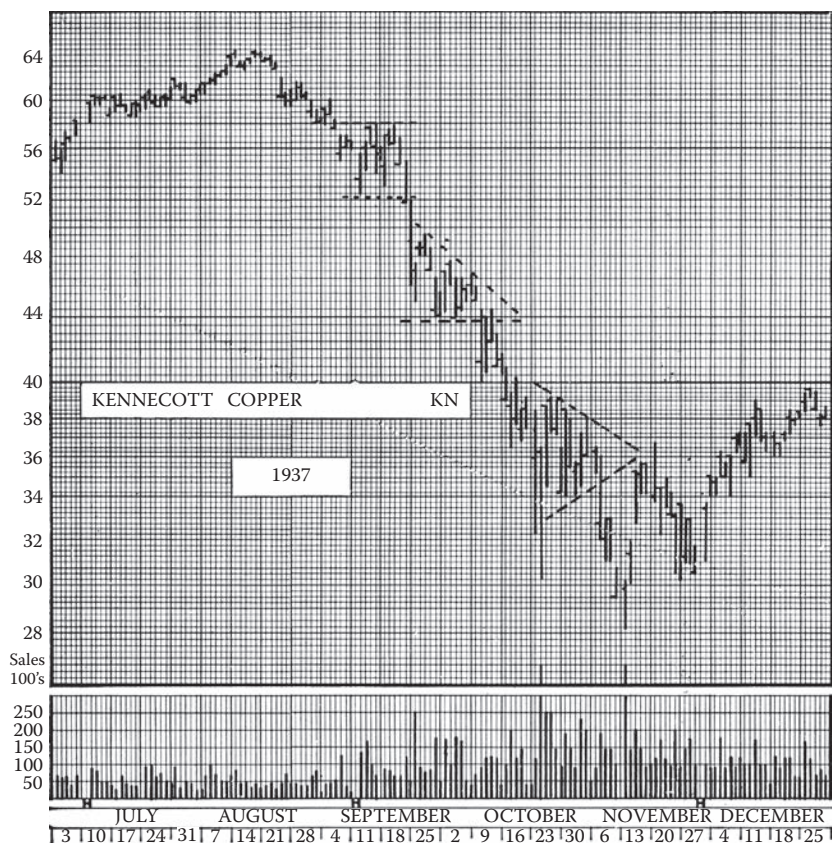


Figure 9.10 A brief and very “high” Rectangle formed in September 1937 in the rapid Bear Market Decline of “KN,” followed by a Descending and then a Symmetrical Triangle Consolidation.

- **Pullbacks**—Return of prices to the boundary of the pattern, subsequent to its initial penetration (breakout), takes place more frequently with Rectangles than with Symmetrical Triangles. Our estimate would be that a Pullback or Throwback (the first is the common term for a rally after a downside breakout, and the second for a reaction following an upside breakout) occurs within three days to three weeks in about 40% of all cases.
- **Directional tendency**—The Rectangle is more often a *Consolidation* Formation than a *Reversal* Formation, the ratio being about the same as with Symmetrical Triangles. As Reversal Patterns, Rectangles appear more frequently at Bottoms (either Major or Intermediate) than at Tops. Long, thin, dull Rectangles are not uncommon at Primary Bottoms, sometimes grading into the type of Flat-Bottomed Saucer or Dormancy described in [Chapter 7](#).
- **Measuring implications**—A safe minimum measuring formula for the Rectangle is given by its width. Prices should go at least as far in points beyond the pattern as the difference in points between the top and bottom lines of the pattern itself, though they may go much farther. Generally speaking, the brief, wide-swinging forms, which appear nearly square in shape on the chart and in which turnover is active, are more dynamic than the longer and narrower manifestations. Moves out of the latter almost always hesitate or react at the “minimum” point before carrying on.

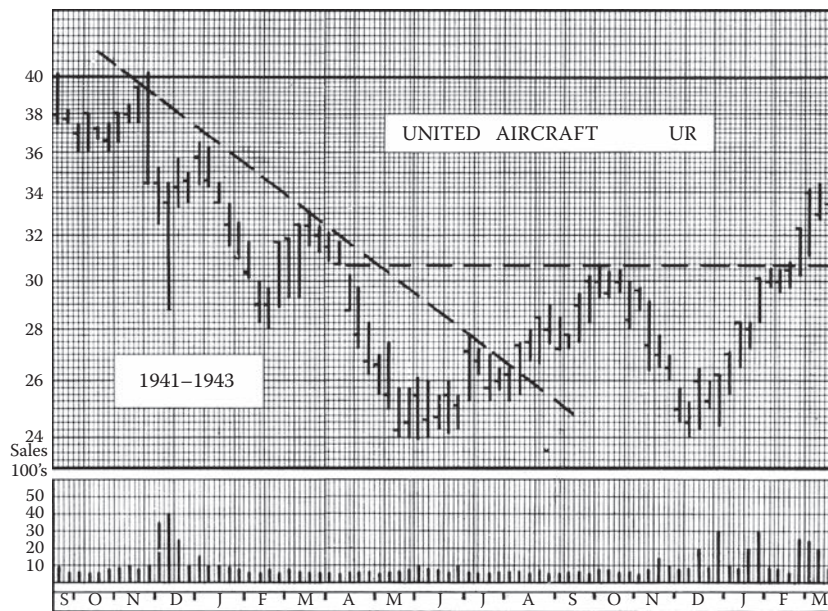


Figure 9.11 This formation, constructed by United Aircraft in 1942, was not completed and could not be called a Double Bottom until prices rose above 31 in February 1943. (See following pages.)

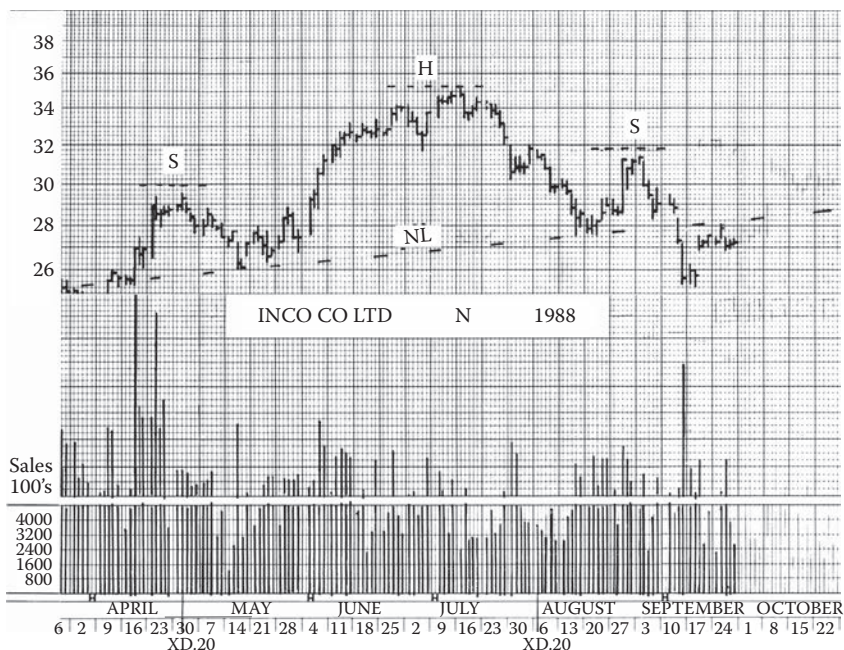


Figure 9.12 INCO quickly recovered from the Reagan Crash of 1987 and by year's end, it was nearly back to its 1987 high; the latter was decisively broken in April 1988. The powerful rally continued to carry "N" higher. But the August reaction, followed by a poor rally in September, created a large Head-and-Shoulders Top. The early September decline broke the neckline to confirm the Reversal and the subsequent Throwback, to Neckline Resistance, was an excellent selling point.

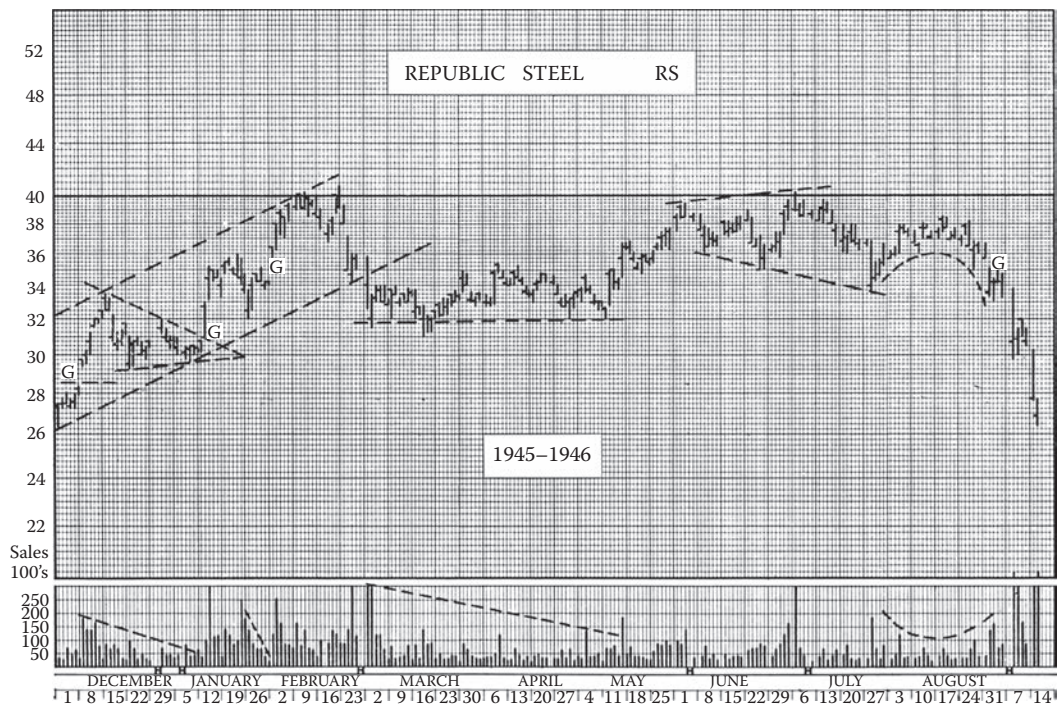
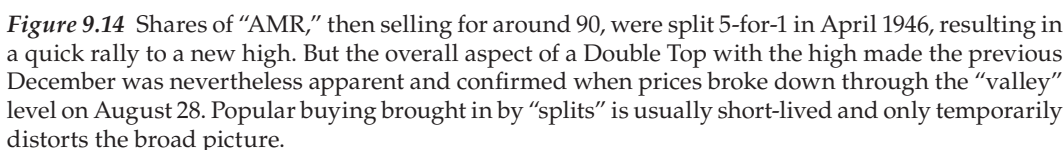


Figure 9.13 Owing to the long-time-between-Tops requirement for true Double Top Reversals, these formations can seldom be seen to advantage on a daily chart, but here is a good 1946 example in Republic Steel. Note the five months and 20% decline between Tops. This chart contains many interesting lesser technical formations also. The “Broadening” Swings (see [Chapter 10](#)) in June and July, as the second Top was made, and the rounding rally in August were extremely Bearish in their implications.

Relation of rectangle to Dow Line

The resemblance of this individual stock chart formation, which we have discussed under the name of Rectangle, to the Average formation known to Dow theorists as a “Line” has doubtless occurred to you. Obviously, their rationale and forecasting implications are much the same, but true Rectangles with sharply delimited Top (Supply) and Bottom (Demand) boundaries are truly characteristic only of trading in individual issues. Line formations in the Averages are seldom rigorously defined, with successive Minor Heights forming quite precisely at a certain horizontal tangent and successive Bottoms at a similarly precise horizontal level. If you will examine the separate charts of the issues composing an Average at a time when the Average is “making a Line,” you will surely find some of them showing an irregular uptrend, others showing an irregular downtrend, still others may be forming Triangles, and a few may be constructing Rectangles, or what not, but it is the algebraic sum of all these more or less divergent pictures that makes up the Average “Line.”

To be sure, there is some tendency on the part of active traders to sell (or buy) stocks when a certain Average reaches a certain figure, regardless of the status of individual issues involved. An investment counsel will occasionally advise his clients, for example, to “sell all speculative holdings when the Dow Industrials reach 500” (EN: or 5,000 or 15,000). But trading commitments based solely on general Average levels are so seldom followed consistently that they have little effect. (EN10: In the modern era, with the availability of index exchange-traded funds, this is no longer true.)



In the preceding chapter, we referred to a type of partial “failure” in the development of a Right-Angle Triangle that necessitates reclassifying the Triangle as a Rectangle. Now that we have examined the latter pattern in detail, we need say little more about this phenomenon, except to note the odds still appear to be somewhat in favor of ultimate breakout in the direction originally implied by the incipient Triangle. The fact there is this slight presumption, however, certainly does not warrant disregard of an opposite breakout from the rectangular reconstruction.

To some of the old hands in the Street, our relegation of that good old byword, the *Double Top*, to a Minor Position in our array of Reversal Formations may seem almost sacrilegious. It is referred to by name perhaps more often than any other chart pattern by traders who possess a smattering of technical “lingo” but little organized knowledge of technical facts. True Double Tops and Double Bottoms are exceedingly rare; Triple Forms are even rarer. Additionally, the true patterns (as distinguished from chart pictures that might mistakenly

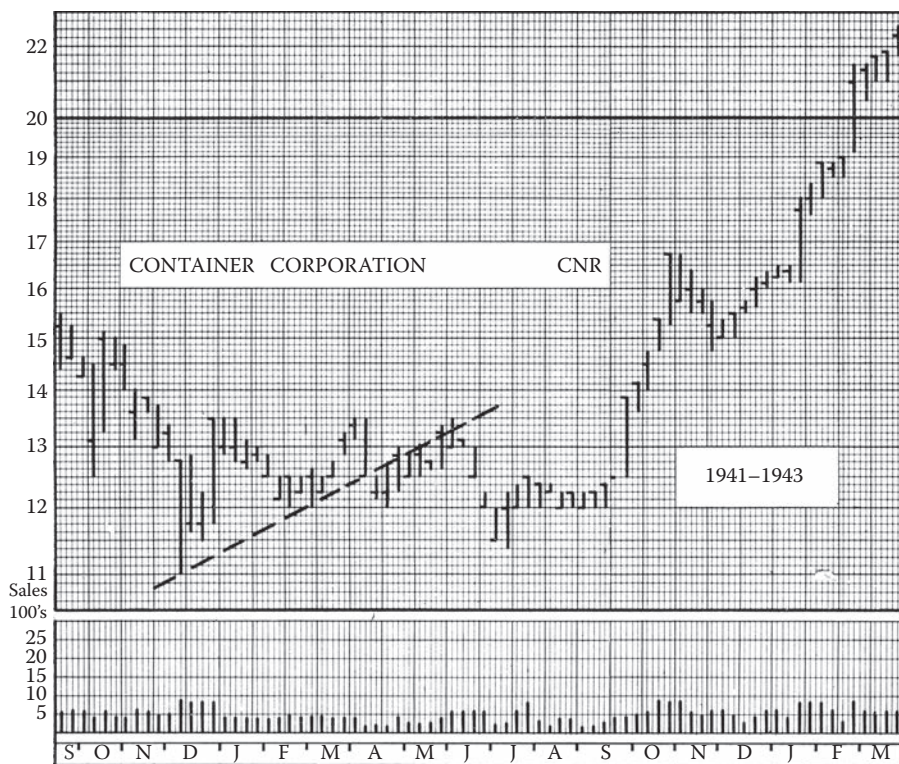


Figure 9.15 The Major Reversal Formation in “CNR” at the start of a Primary Advance that reached 54. Note how an attempt at an Ascending Triangle turned into a Double Bottom.

be called such but are really assignable to some one of our other Reversal Formations) can seldom be positively detected until prices have gone quite a long way away from them, and can never be foretold or identified as soon as they occur from chart data alone.

But we are getting ahead of our story; we should first define what we are talking about. A *Double Top* is formed when a stock advances to a certain level with, usually, high volume at and approaching the Top figure, then retreats with diminishing activity, then comes up again to the same (or practically the same) top price as before with some pickup in turnover, but not as much as on the first peak, and then finally turns down a second time for a Major or Consequential Intermediate Decline. A *Double Bottom* is the same picture upside down; the Triple types make three Tops (or Bottoms) instead of two.

It is not difficult to skim through a book of several hundred monthly charts and pick out two or three examples of Major Double Tops and, perhaps, one or two Double Bottoms. One will find cases in which stocks made two successive Bull Market Peaks several years apart at almost identical levels. Such phenomena stand out, in distant retrospect, like the proverbial sore thumb, which undoubtedly accounts for the undue awe with which the amateur chartist regards them. He neglects, for the moment, to consider the fact a thousand other issues might have done the same thing but did not—that some of these even acted, for a time, as though they were going to Double Top, but then went on through and higher.

Is there any practical utility for the trader or investor in the Double Top concept? Yes, there is, but it will be easier for us to formulate it if we first consider what is *not* a Double Top. Refer back for a moment to the Ascending Triangles and the Rectangles previously studied;

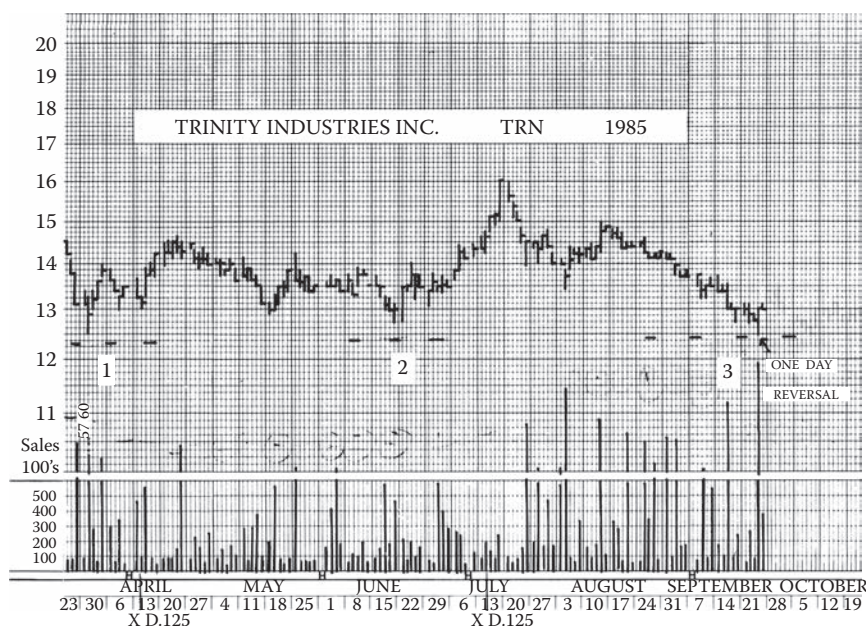


Figure 9.16 Although Trinity Industries did not have the well-formed pattern exhibited by our other recommendations, we found the high-volume plunge, with the low of the day the third test of the year's low, a very beguiling technical situation. Basically, it was a Triple Bottom with a One-Day Reversal to get the uptrend started.

when these start to evolve, the majority of the time their first step is the construction of two Tops at an identical level with an intervening recession, and with less volume on the second Top than on the first. In the ordinary course of events, a third Top will develop there, and ultimately, prices will break through and move on up to still higher levels. Thus, we see we must have some rule or criterion to distinguish a true Double Top Reversal Pattern from the Double Tops that do not imply Reversal when they appear as a part of a Consolidation Area in an uptrend.

Distinguishing characteristics

No absolute and unqualified rule can be laid down to fit all cases involving stocks of different values and market habits, but one relative distinction quickly suggests itself when we study these different kinds of chart formations: if two Tops appear at the same level but quite close together in time and with only a Minor Reaction between them, chances are they are part of a Consolidation Area; or, if a Reversal of Trend is to ensue, there will first be more pattern development—more “work” done—around those top ranges. If, on the other hand, there is a long, dull, deep, and more or less rounding reaction after the initial peak has appeared, and then an evident lack of vitality when prices come up again to the previous high, we can at least be suspicious of a Double Top.

How deep is deep, and how long is long? Fair questions, to which, unfortunately, it is impossible to give simple, definite answers, but we can attempt approximations. Thus, if the two Tops are *more than* a month apart, they are not likely to belong to the same Consolidation or Congestion Formation. If, in addition, the reaction between the first and second high reduces prices by 20% of their top value, the odds swing toward a Double Top

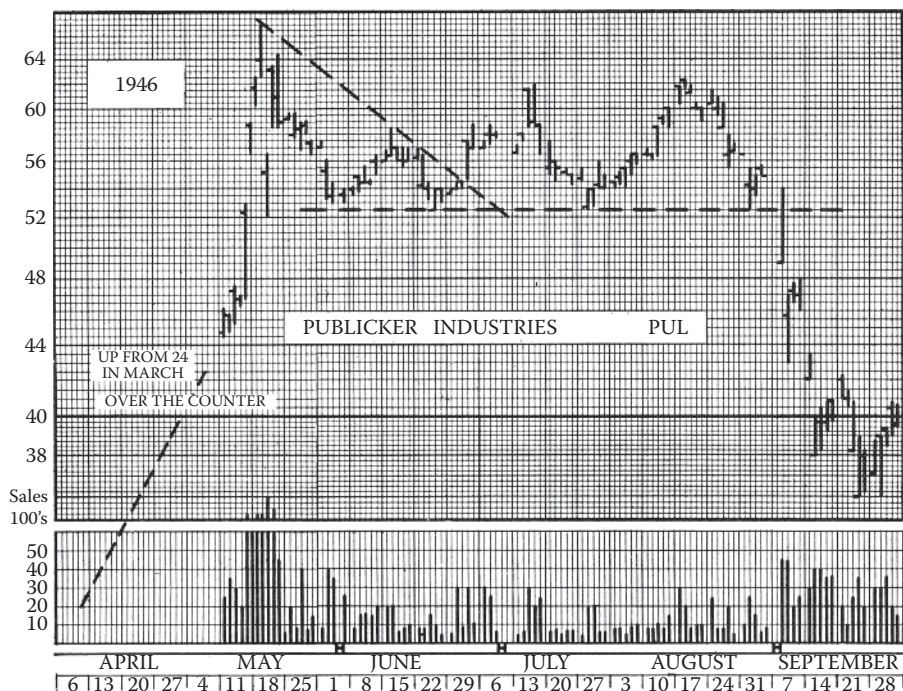


Figure 9.17 Publicker made its Bull Market high only a few weeks after it was listed on the “big board.” Then it started to build a Descending Triangle but pulled up out of it. The final outcome was a Triple Top, completed in August (see Figures 8.17 and 9.15).

interpretation. But both of these criteria are arbitrary, and not without exception. There are cases in which the two peaks have occurred only two or three weeks apart, and others in which the “valley” between them descended only about 15%. Most true Double Tops, however, develop two or three months or more apart. Generally speaking, the time element is more critical than the depth of the reaction. The greater the time between the two highs, the less the need of any extensive decline of prices in the interim.

Given the conditions we have specified, namely, two Tops at approximately the same level but more than a month apart on the chart, with somewhat less activity on the second advance than on the first, and a rather dull or irregular and rounding type of recession between them, we can then be suspicious that a Double Top Reversal has actually evolved. Should a small Head-and-Shoulders or Descending Triangle start to develop at the second Top, as is frequently the case, we can be on guard, to the extent of protecting long commitments at once with a close stop or by switching to something else with a more promising chart picture.

Yet, even all these signs together are not final and conclusive. The situation can still be saved, and often is. Let us take a look at what is, presumably, going on behind the scenes to create our chart picture up to this point. The first Top on relatively high volume was a normal incident and tells us little except that here, for the moment, demand met with sufficient supply to stop the advance and produce a reaction. That supply may have represented only traders’ profit-taking, in which event the trend is likely to push on up after a brief setback. But, when the reaction drifts off lower and lower until it has given up 15% and more of the stock’s peak market value, and flattens out without any prompt and

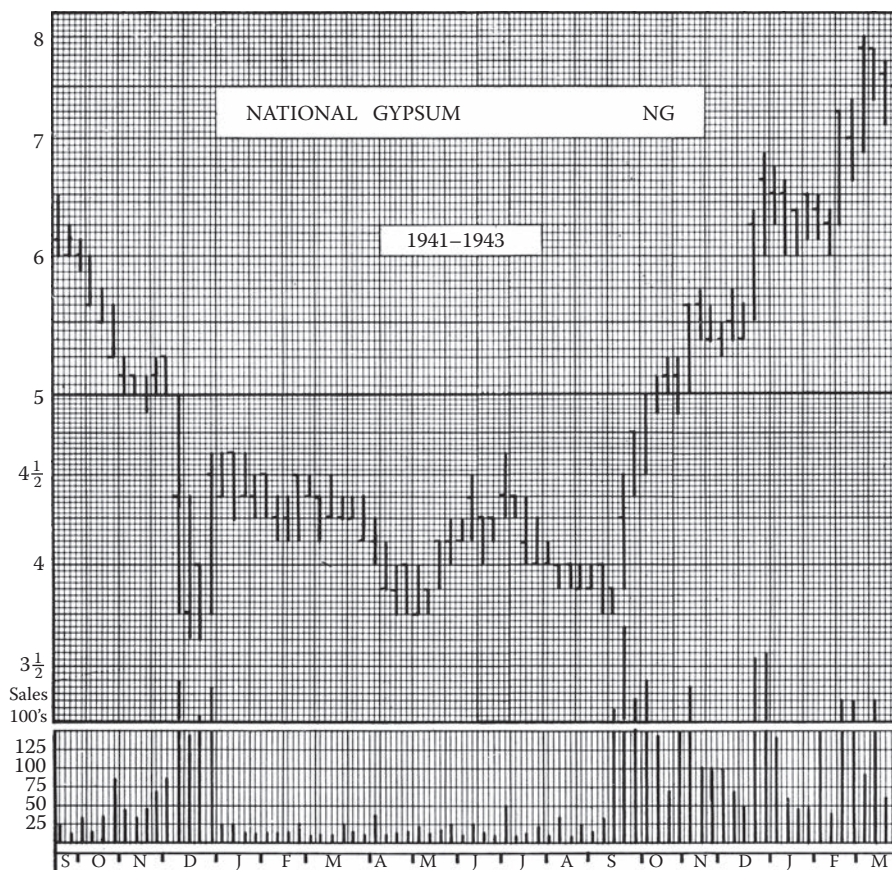


Figure 9.18 In the ordinary course of events, at the time this Bottom Pattern developed in “NG,” consisting, as it did, of fluctuations for 10 long months within a range of only 1 full point, most traders would pay no attention to it. Certainly, it suggested very little opportunity for short-term profits. On an arithmetically scaled chart, the pattern could hardly be seen. Logarithmic price scaling, however, as we have remarked in an earlier chapter, has the great advantage of bringing to light the percentage importance of significant market action at very low price levels.

vigorous rebound, it becomes evident that either the demand was pretty well played out on the last advance or the selling represented something more than short-term profit cashing. The questions then are these: did the first high give evidence of important distribution, and is there much more to meet at the same price range?

Nevertheless, as our chart picture shows, demand did finally come in and absorb enough of the floating supply to turn the trend around. When prices pushed up and began to run into selling again near the level of the first Top, that was to be expected on “psychological” grounds; many quick-turn operators naturally would take profits at the old high (perhaps with the intention of jumping right back in at a still higher price if the old high should be exceeded). Hence, a Minor Hesitation there was quite in order. But selling in sufficient quantity to produce another extensive reaction would be quite another matter. We have, by now, established a zone of Supply or Resistance at the peak levels and a zone of Support or Demand at the Bottom of the valley between. The final and decisive question now is this: will the “valley” Support reappear and stop the second decline?

The conclusive definition of a Double Top is given by a negative answer to that last question. If prices, on their recession from the second peak, drop through the Bottom level of the valley, a Reversal of Trend from up to down is signaled, which is usually a signal of major importance. Fully confirmed Double Tops seldom appear at turns in the Intermediate Trend; they are characteristically a Primary Reversal phenomenon. Hence, when you are sure you have one, do not scorn it. Even though prices may have already receded 20%, the chances are they have very much farther to go before they reach bottom.

As to measuring implications, the Double Top affords no formula comparable with what we have attributed to Head-and-Shoulders and Triangle Formations, but it is safe to assume the decline will continue *at least as far* below the valley level as the distance from peak to valley. It may not be so in one interrupted slide; on the contrary, considerable time may be required to carry out the full descent in a series of waves. Pullbacks to the “valley” price range, following the first breakthrough, are not uncommon. (Take into account the general rule that a Reversal Formation can be expected to produce no more than a retracement of the trend that preceded it.)

One more point: we have said the Tops need not form at precisely the same level. Use here the 3% rule we have previously laid down as a measuring stick for breakouts. A first Top at 50, for example, and a second at 51 1/2 would come within this limit. Curiously enough, the second peak often does exceed the first by a fraction. The important points are (1) that buying cannot push prices up into the clear *by a decisive margin*, and (2) the Support below is subsequently broken.

Double Bottoms

In identifying a Double Bottom, we can apply all of the precepts we have formulated for the Double Top Pattern, but upside down. The differences between the two pictures are just what you might expect them to be, having in mind the characteristic differences between Head-and-Shoulders Tops and Bottoms, for example. Thus, the second Bottom is usually conspicuously dull (little trading volume) and is apt to be quite rounded, whereas the second Top in a Double Top is moderately active and nearly as sharp and “spiky” in contour as the first. The rally up from the second Bottom shows an increase in turnover, and volume should pick up to a marked degree as the valley level, or more properly, in this case, the *height* between the two Bottoms, is surpassed. Double Bottoms appear just about as frequently as do Double Tops at Primary Trend Reversals, and Double Bottoms also occur sometimes at the end of Intermediate Corrections in a Major Uptrend.

If you are familiar with some of the jargon of the Street, it has probably occurred to you that the second low of a Double Bottom is an example of the market action so often referred to as a “test.” In a sense, that is just what it is—a test or corroboration of the Support (i.e., demand) that stemmed the first decline at the same level. The *success* of that test is not *proved*, however—and this is a point to remember—until prices have demonstrated their ability to rise on increasing volume above the preceding high (the height of the rally between the two Bottoms). Until such time, there is always the possibility a second test (third bottom) may be necessary, or even a third, and that one of these will fail with prices then breaking on down into further decline. This thought leads us to our next type of Reversal Formation.

Triple Tops and Bottoms

Logically, if there are Double Tops, then we might expect that there will also be Triple Tops, which will develop in somewhat similar fashion. The fact is that Reversal Formations,

which can only be classed as Triple Tops, do occur, but they are few and far between. Many patterns evolve at an important turn from up to down in the trend that contains three Top points, but most fall more readily into the category of Rectangles. For that matter, any Head-and-Shoulders Formation, particularly if it be rather “flat” with the head not extending much above the level of the two shoulders, might be called a sort of Triple Top.

The true Triple Top (as distinct, that is, from other types of three-peak formations) carries a recognizable family resemblance to the Double Top. Its Tops are widely spaced and with quite depth and usually rounding reactions between them. Volume is characteristically less on the second advance than on the first, and still less on the third, which often peters out with no appreciable pickup in activity. The three highs need not be spaced quite so far apart as the two that constitute a Double Top, and they need not be equally spaced. Thus, the second Top may occur only about three weeks after the first and the third six weeks or more after the second. Also, the intervening valleys need not bottom out at exactly the same level; the first may be shallower than the second and vice versa. Also, the three highs may not come at precisely the same price; our 3% tolerance rule is again useful here. Yet, despite all these permissible variations, there should be, and generally is, something suspiciously familiar about the overall picture, something that immediately suggests the possibility of a Triple Top to the experienced chartist.

The *conclusive* test, however, is a decline from the third Top that breaks prices down through the level of the valley floor (the lower one, if the two valleys form at different levels). Not until that has occurred can a Triple Top be regarded as confirmed and actually in effect; so long as demand persists at the valley price range, the trend can be turned up again. Only in those cases in which activity is conspicuously lacking on the third peak and then begins to show Bearish characteristics by accelerating on the ensuing decline is one justified in “jumping the gun.”

Note this formation qualifies as a Triple Bottom in every detail—spacing between Bottoms, extent in percent of intervening rallies, volume. Of course, its completion in October 1942 did not necessarily forecast that “NG” would climb to 33, as it ultimately did. But the fact that many other stocks were making sound Major Bottom Formations at higher price levels at the same time certainly warranted the conclusion that “NG” was on its way up, and that it was a bargain at 5.

Triple Bottoms are simply Triple Tops turned upside down, with the same qualifications noted when discussing Double Bottoms. The third low should always be attended by small volume, and the rise therefrom must show a decided increase in turnover and carry prices decisively above the Tops of the rallies that formed between the Bottoms. One is never justified in “jumping the gun” on a presumed Triple Bottom Formation unless nearly every other chart in the book is in an unmistakably Bullish position. The risk of premature buying is expressed in a saying one sometimes hears in the boardrooms to the effect of “a Triple Bottom is always broken.” This is not a true saying. Once a Triple Bottom has been established and confirmed by the necessary up-side breakout, it seldomly fails—it almost always produces an advance of distinctly worthwhile proportions. But an uncompleted “possible” Triple Bottom chart picture must be regarded as treacherous. Stick to the breakout rule and you will be safe.

Triple Tops are sometimes referred to as “W” Patterns because of their occasional resemblance to that capital letter on the chart. There is a sort of hybrid between the Double and Triple Top, in which the middle one of the three Tops does not attain the height of the first and third, and thus, even more strikingly resembles a “W.” For the same reason, Double Tops are sometimes called “M” Formations.

Because the elements in Double and Triple patterns are normally spaced well apart in time, they are often easier to detect and appreciate on a weekly chart than on a daily. Monthly graphs disclose numbers of widely spread Double and Triple Bottoms but, on the other hand, are too coarse to reveal many good Double and Triple Top Patterns.

In our foregoing discussion of the Triple Top, we referred to a sort of intuition that comes with experience and enables a technical analyst to recognize the potentialities for Reversal of a certain chart development, sometimes long before it has reached a conclusive stage. This is a not uncommon talent, but it is one that is seldom attained except through searching study and long experience (in which the latter usually involves a few expensive mistakes). The reader of this book need not despair of acquiring “chart sense” and without undue cost—if he will concentrate on his study, watch, check, and double-check every new development on his charts, and “keep score” on himself.

It has been said that chart interpretation is not a *science* but an *art*. It is not an exact science, to be sure, because it has no rules to which there are not exceptions. Its finer points defy expression in rule or precept. It requires judgment in appraisal of many factors, some of which may seem, at times, to conflict radically with others. But to call it an art, which implies the need for genius, or at least for a high degree of native talent, is certainly improper. Say, rather, that it demands skill, but a skill that can be acquired by anyone of ordinary intelligence.

chapter ten

Other Reversal phenomena

We have considered so far eight classes of chart patterns that appear at more or less important Reversals of direction in the trend of prices. They are as follows:

1. The Head-and-Shoulders
2. Multiple or Complex Head-and-Shoulders
3. Rounding Turns
4. Symmetrical Triangles
5. Right-Angle Triangles
6. Rectangles
7. Double and Triple Tops and Bottoms
8. One-Day Reversal

Of these, numbers 1, 2, 3, and 7 develop most often at Major Turns, whereas numbers 4, 5, and 6 occur more frequently at Intermediate Stages. Numbers 1, 2, 3, and 5 give indication *before* they are completed as to which way the price trend is likely to proceed from them. Numbers 4 and 6 give no such indication and, as we have seen, are rather more apt to signal Consolidation or Continuation than Reversal. But all of them can, and on occasion do, appear at both Major Tops or Bottoms. *EN: Number 8 appears typically after uncontrollable moves, up and down.*

We have yet to take up a few other technical patterns that, because of their limited significance, rarity, or doubtful utility to long-term traders, have been relegated to the end of our Reversal studies (see [Figures 10.1](#) through [10.28](#)).

The Broadening Formations

In concluding our discussion of Triangles in [Chapter 8](#), we mentioned certain types of price congestion or trading areas that have sometimes been called “Inverted Triangles” because, starting with very narrow fluctuations, they widen out between diverging rather than converging boundary lines. Herein, we have chosen to classify them instead as *Broadening Patterns* since, except for that inverted resemblance in superficial appearance, they are quite different in nature and trend implications.

If the Symmetrical Triangle presents a picture of “doubt” awaiting clarification and the Rectangle a picture of controlled “conflict,” the Broadening Formation may be said to suggest a market lacking intelligent sponsorship that is out of control—a situation, usually, in which the “public” is excitedly committed and is being whipped around by wild rumors. Note though we say it only suggests such a market; there are times when it is obvious those are precisely the conditions that create a Broadening Pattern in prices, yet other times when the reasons for it are obscure or undiscoverable. Nevertheless, the very fact that chart pictures of this type make their appearance, as a rule, only at the end or in the final phases of a long Bull Market lends credence to our characterization of them.

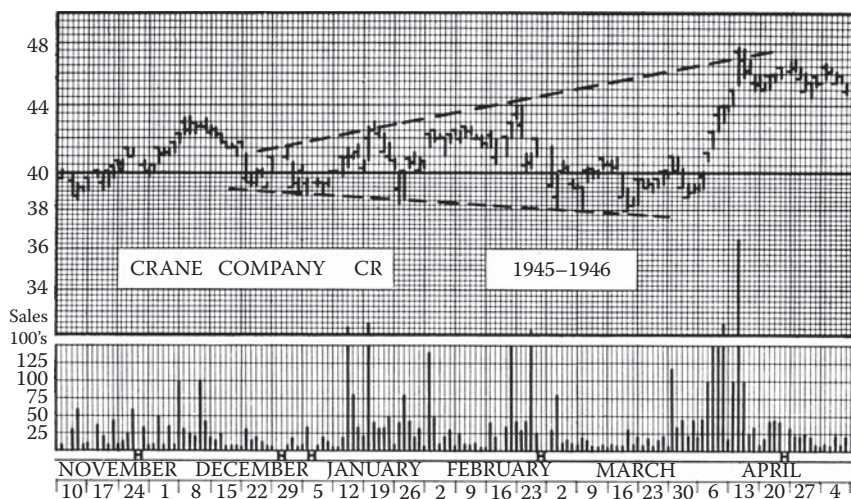


Figure 10.1 The Symmetrical type of Broadening Formation, which develops most frequently in the later and more “excited” stages of a Primary Bull Market, is perfectly exemplified in this Crane Company chart. Note that the Broadening Pattern here started to form in December 1945 after a 10% reaction; if it had formed on Top of a rally, it would have been suspected as a possible Broadening Top. Nevertheless, it carried the usual Bearish implications. “CR” topped out at 49½ in June.

Hence, after studying the charts for some 20 years and watching what market action has followed the appearance of Broadening Price Patterns, we have come to the conclusion they are definitely Bearish in purport—that, while further advance in price is not ruled out, the situation is, nevertheless, approaching a dangerous stage. New commitments (purchases) should not be made in a stock that produces a chart of this type, and any previous commitments should be switched at once or cashed in at the first good opportunity.

The Broadening Formation may evolve in any one of three forms, comparable, respectively, to inverted Symmetrical, Ascending, or Descending Triangles. The “Symmetrical” type, for example, consists of a series of price fluctuations across a horizontal axis, with each Minor Top higher and each Minor Bottom lower than its predecessor. The pattern may thus be roughly marked off by two diverging lines, the upper sloping up (from left to right) and the lower sloping down. But these Broadening Patterns are characteristically loose and irregular, whereas Symmetrical Triangles are normally regular and compact. The converging boundary lines of a Symmetrical Triangle are clearly defined as a rule, and the Tops and Bottoms within the formation tend to fall with fair precision on those boundary lines. In a Broadening Formation, the rallies and declines usually do not all stop at clearly marked boundary lines.

Volume during Broadening Formations

Another distinction between Triangle and Broadening Formation is in the volume chart. The construction of a true Triangle is attended, as we have seen, by diminishing activity, starting with high volume on the first Minor Reversal that initiates the pattern, but growing less and less as prices fluctuate in ever-smaller waves out toward the apex. Then activity picks up again after prices have broken out of the Triangle, immediately and sharply if the breakout is through the topside. With the Broadening Formation, on the other hand, trading activity usually remains high and irregular throughout its construction. If it develops after



Figure 10.2 Although this particular Major Reversal Formation appeared on the charts more than 35 years ago, it is so perfectly developed and on such a large scale that it may well stand as our elementary model for an Orthodox Broadening Top. This pattern in Air Reduction is discussed in detail on previous pages. Note also the Symmetrical Triangle Consolidation of July–August, and the examples of Runaway, Breakout, and Exhaustion Gaps (RG, BG, and EG), which will be taken up in [Chapter 12](#).

an advance, as is almost always the case, the first Minor Reversal that starts the pattern will occur on a large turnover, but so will the second rally in the pattern, and the third, and high volume also frequently develops on one or more of its Minor Bottoms. The whole picture—both price and volume—is, thus, one of wild and apparently “unintelligent” swings.

As can easily be seen, under such circumstances, a true breakout from the area may be difficult, if not impossible, to detect at the time it eventuates. The volume part of the chart

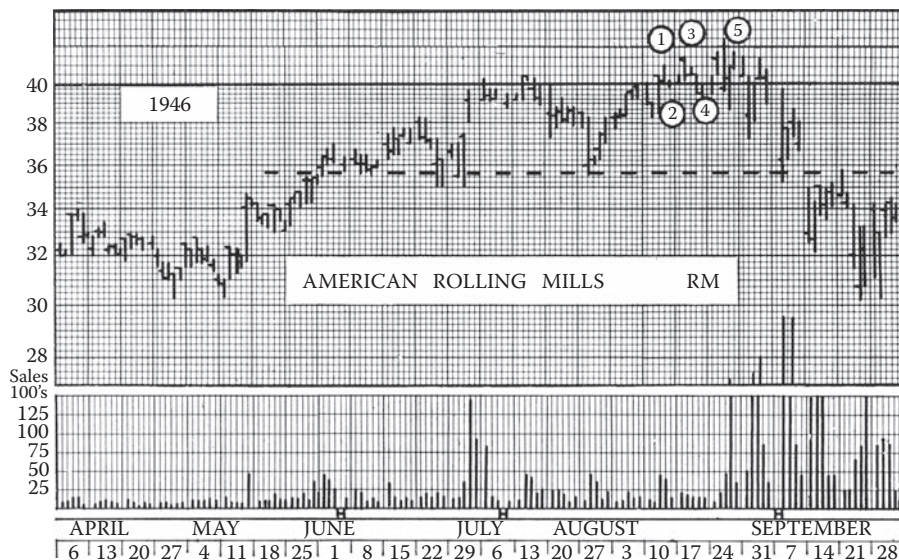


Figure 10.3 A small, but perfect, 1946 Broadening Top that formed at the end of a three-month chart pattern, which also had overall Broadening (and, hence, Bearish) aspects. The five critical points of Reversal are numbered on the chart. The “breakout” was registered on August 27. The Pullback Rally that followed immediately was strong, but it still held within normal bounds. Another interesting Broadening Top of 1946 appears in [Figure 33.7](#).

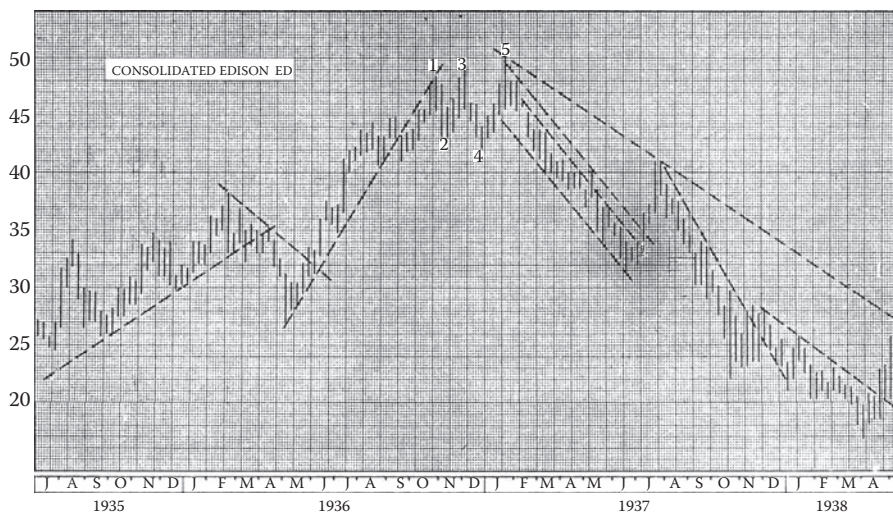


Figure 10.4 When they appear as plain and as compact as this example, Broadening Tops on weekly charts carry very powerful Reversal indications. The Top of the fifth turn in this formation was capped on the daily chart by a Head and Shoulders, which was pictured in [Figure 6.7](#). The dashed lines on the above chart are trendlines—to be discussed in [Chapter 14](#).

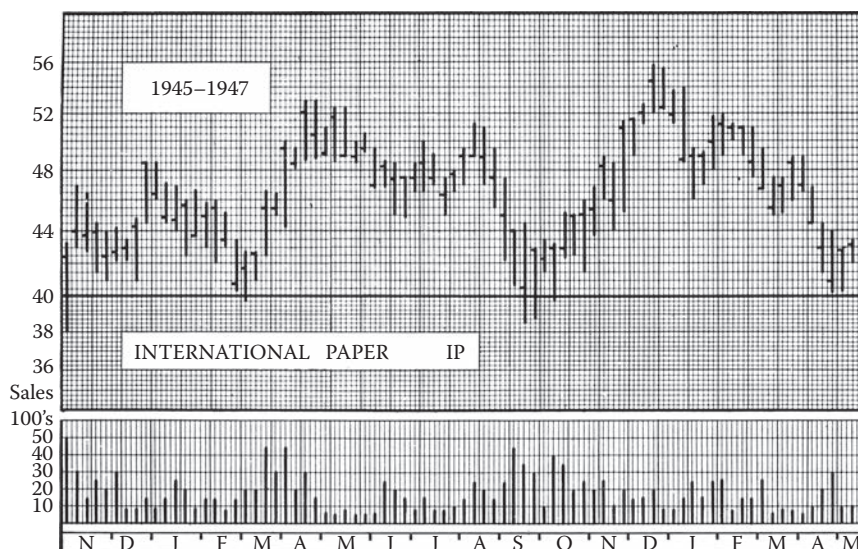


Figure 10.5 Broadening tendencies that appear on monthly charts, or very wide spread (with Tops five or six months apart) like the above on weekly charts, should not be regarded as significant technical formations. Reversal points in a true Broadening Top should not be more than two months apart, as in [Figure 10.4](#).

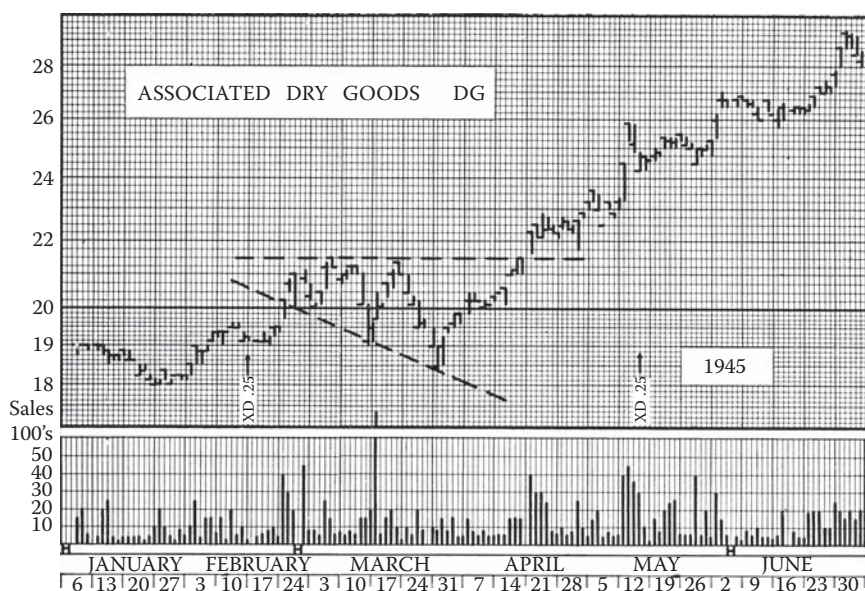


Figure 10.6 Three successive reactions in “DG” in February–March 1945 made successively lower Bottoms, but the intervening rallies came up to the same high (about 21¼), thus forming a Right-Angled Broadening Formation with a horizontal Top (Supply) Line. Penetration of this technically important top line on April 16 was a Bullish signal. The flat-topped type of pattern does not necessarily portray a Bearish situation.

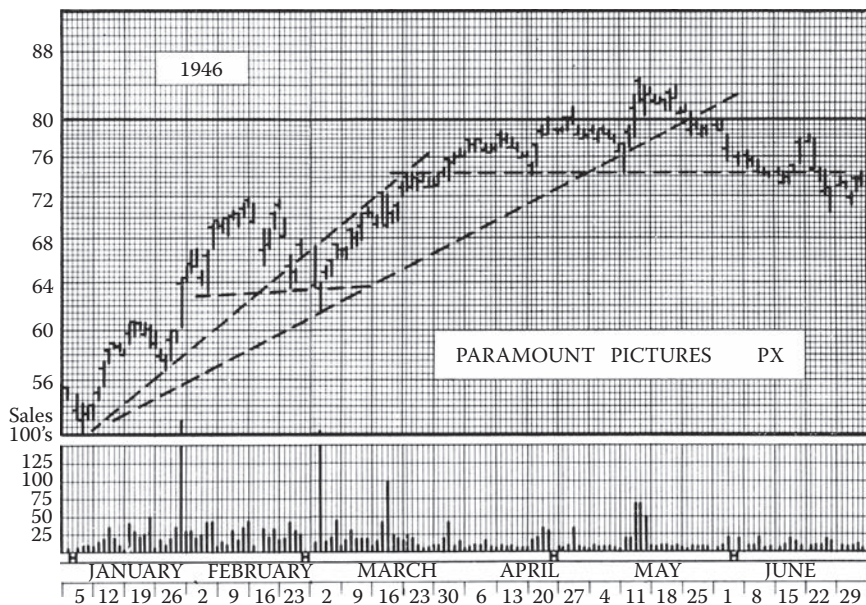


Figure 10.7 The 1946 Top in Paramount Pictures, from which it fell to 46 a year later, was a Right-Angled Broadening Formation with a horizontal bottom line that was “cracked” the first week of June, but not decisively broken until June 20. (This stock was later split 2-for-1.)

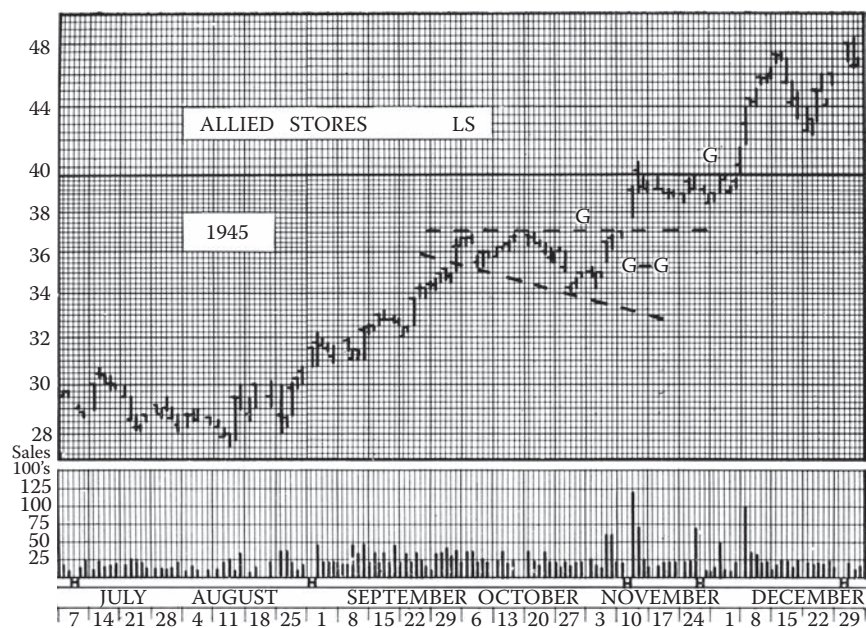


Figure 10.8 Another example of the Flat-Topped type of Broadening Price Pattern that appeared near the end of 1945. “LS” went on up to 63 in 1946. Prices broke out of this formation with a Breakout Gap (G) and another Breakout Gap appeared on December 3. G-G marks an “Island.” See [Chapter 12](#) for Gaps.

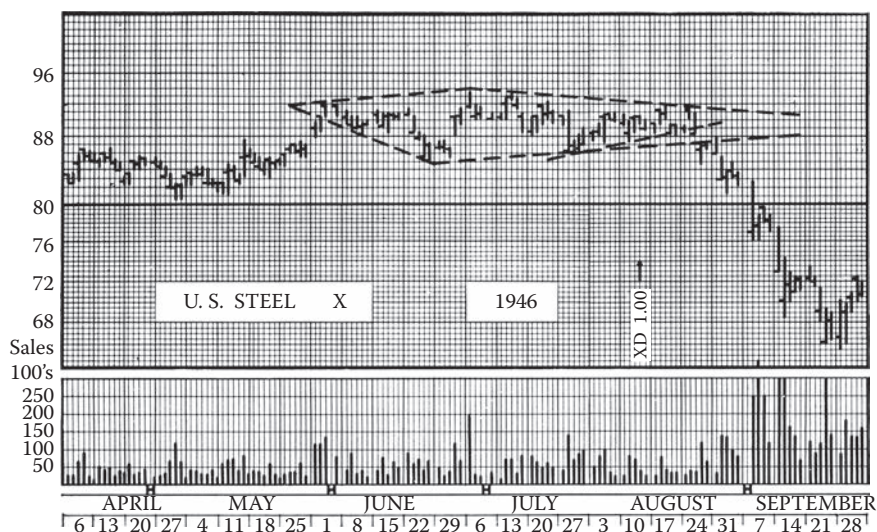


Figure 10.9 The 1946 Bull Market Top in U.S. Steel was a three-month Diamond that might also be construed as a Head-and-Shoulders.

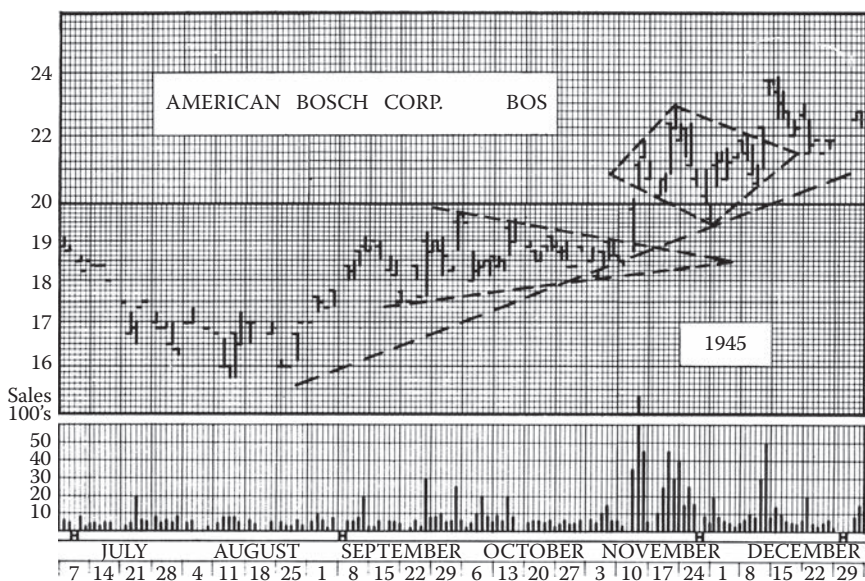


Figure 10.10 A Diamond (November) that broke out topside and thus functioned as Consolidation rather than Reversal.

obviously furnishes no clue, while the very looseness and lack of definition of the price pattern prevent the drawing of any line that surely says, “this far and no farther.” (We are referring now to the “Symmetrical” type only of Broadening Formation.) Once prices have run well away, either up or down, from the pattern area, it becomes plain that a breakout has occurred, but by that time, it may be too late to risk a trade on the situation; the move may already have gone too far. What can we do about Broadening Formations then? Well,

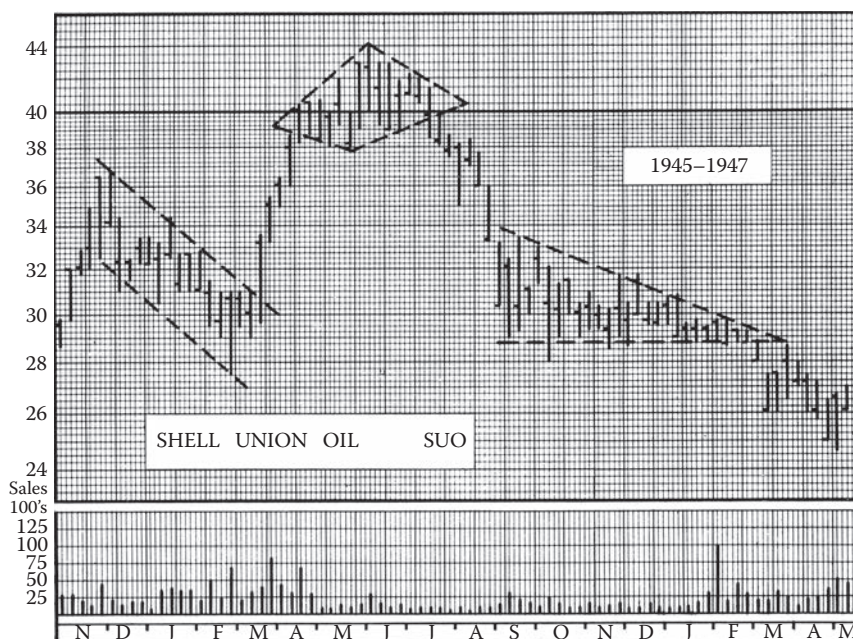


Figure 10.11 Diamond Reversal Formations are often easier to detect on weekly than on daily charts. Trace out the price swings and volume in this May-June 1946 Diamond in Shell. Note also the remarkable Descending Triangle that developed from September 1946 to February 1947, and the March Pullback to its apex, another ideal place to sell short.

we have already noted 9 times out of 10 they carry Bearish implications. They appear most often at or near an important topping out of the trend. Hence, it is reasonably safe to assume that prices, when they finally break away from the formation, will go down, or if they do go up, will very soon turn around and come back down again. Therein lies one answer to the problem of what to do about a Broadening Formation.

In addition, the price action within the formation, in many cases, furnishes an *advance* indication of breakout direction. If the trend is going to break down from the Broadening Area, the last rally within the area may fail to rise as high as its predecessor, thus breaking the sequence of ever higher Tops within the pattern. Alternatively, if the trend is going to emerge on the topside, the last reaction within the pattern may fail to depress prices as low as the preceding reaction. These “failures” within the pattern occur, as we have stated, in a majority of all Broadening Formations. Note that one cannot be sure of such a significant development (what we have referred to above as a failure, for lack of a better descriptive name) until prices go on and out the other side of the formation or, more precisely, have exceeded the last preceding move in that direction by a decisive margin (our 3% rule again).

A typical example

No doubt the foregoing paragraph sounds rather complicated. It will be easier to visualize the development of a “failure” signal if we cite an example using actual price figures. Easier yet, perhaps, if the reader will sketch out our example on a scrap of chart paper. Suppose stock XYZ, after advancing some 30 points on gradually increasing turnover, runs into heavy selling at 62 and reacts to 58. But there is still plenty of interest in the issue; it stops

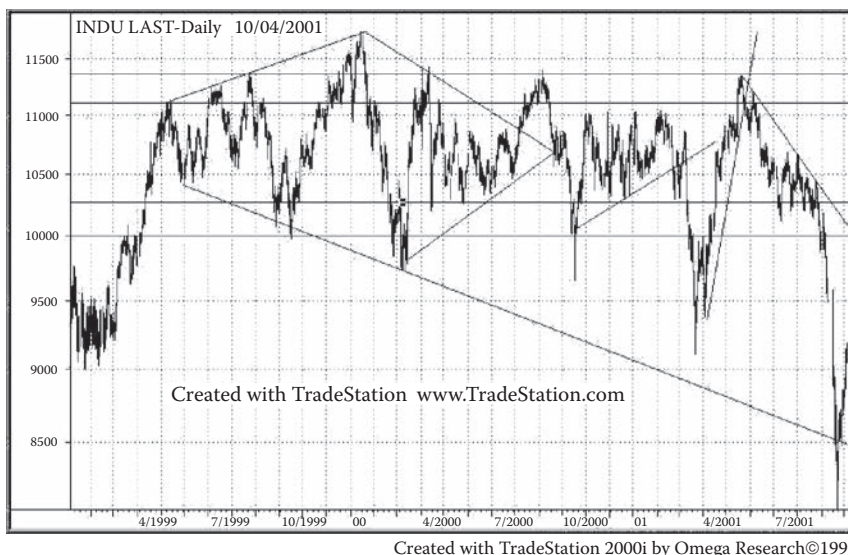


Figure 10.12 Technicians in the future will look back with amazement at the Top, which put the exclamation point on the Bull 1990s. The most amazing thing being that what was going on at the time was recognizable and subject to analysis with a ruler (see Resources). The analysis furthermore indicated the party was over (or at least the fat lady was in the process of singing). As Edwards noted, the Broadening Top, *which had (and has) implications of its own*, morphed into a Diamond, which threw off a false signal, breaking out on the upside, which developed into another triangular-like pattern (could be looked at as ragged triangular or ascending—only bottom line shown here), which after a head fake broke down, made a modified V-Bottom and returned to the top of what could be looked at as a monster rectangle. The top horizontal line, drawn in August 2000, stops the 2001 rally cold and from there it is a slippery slide to the tragedy of September 11, 2001. It was obvious that the investor had no business being long and that trading strategy was in order. Was there any prescience in recognizing the mulish sideways trend of the market? None whatsoever. Is all this hindsight? The reader may see for himself by examining the record of how this market was analyzed *at the time* at the edwards-magee.com newsletter archives.

at 58 and then swings up to a new peak at 63. It “churns” there for a day or two and drops back again, this time to 56½ before it is halted by another burst of buying. Its third rally takes it up to 62, where it hesitates and falls back to 59, but it is then picked up again and carried on to 65. (By this time, a Broadening Formation has become evident on the chart.) At 65, there is a great show of trading, followed by another reaction that drops quotations quickly back to 60. Support appears there momentarily and prices fluctuate for three or four days between 60 and 62 and then fall away again, finally to close at 56, with volume running high all through this phase. A fourth rally starts, but now the traders who bought in at 60 on the preceding downswing are frightened and looking for a chance to “get out even,” and the advance is stifled at that level. Quotations start to slip and soon are down to 55, *below the previous pattern Bottom*. When this occurs, the “failure” of the preceding rally is confirmed—its failure, that is, to rise above 65 and, thus, carry on the Broadening Movement. The decline below 56, by virtue of that failure, may be regarded as a breakout.

If you followed the foregoing example closely, you will have noted there can be (and very often are) Minor Fluctuations inside the pattern that do not affect its outcome. Thus, the rise from 56½ to 65 really consisted of three moves, first from 56½ to 62, then from 62 back to 59, and, finally, from 59 up to 65. The reaction from 62 had no significance so long

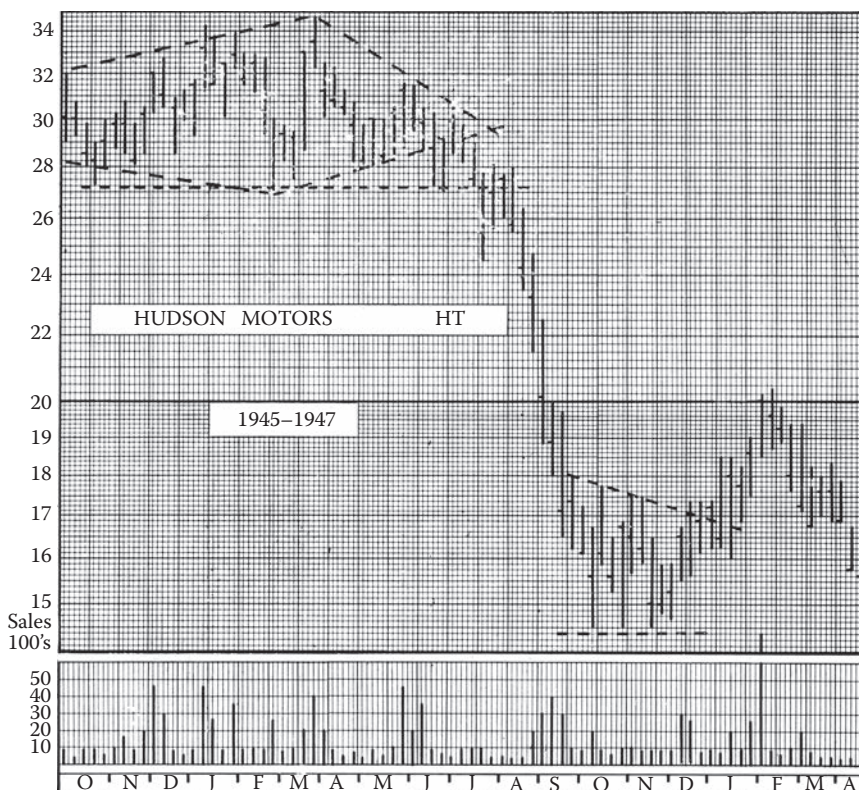


Figure 10.13 Hudson is another stock that ended its Bull Market in 1946 with a Major Diamond, which also could be taken as a Complex Head and Shoulders. This formation was plain on the weekly chart but hard to see on the daily. Note how the Diamond gave a sell signal about 2 points higher than the Head-and-Shoulders. The $14\frac{1}{2}$ – $17\frac{1}{2}$ area at the end of the year, when construed as a weak Rectangle, was barely fulfilled in February 1947.

as it stopped *above* $56\frac{1}{2}$ and was succeeded by a new rise carrying beyond the previous pattern high, which, in this case, had been 63.

The example just detailed is one of the more common types in which the failure occurs on a rally and the breakout eventuates on the downside. But it could have been converted into the opposite form if the last decline had stopped at 60, and then, instead of fluctuating for a few days between 60 and 62 and breaking down again, had pushed right back up and past 65. That action would have given us a failure on a decline and an upside breakout. (The odds would be, however, that the final Top was not far away.)

The Orthodox Broadening Top

There is one particular manifestation—a special case, as the mathematicians might say—of the Broadening Price Formation whose general nature we have discussed in the preceding paragraphs. This particular form appeared at the 1929 Tops of many of the active and popular stocks of that day, but it has done so with less frequency at Bull Market highs since 1929, and rarely has done so at high-volume Tops preceding extensive Intermediate Declines, as in 1933 and 1934. It is known to market technicians under the specific name of *Broadening Top*, and although it conforms to our general descriptions for all Symmetrical

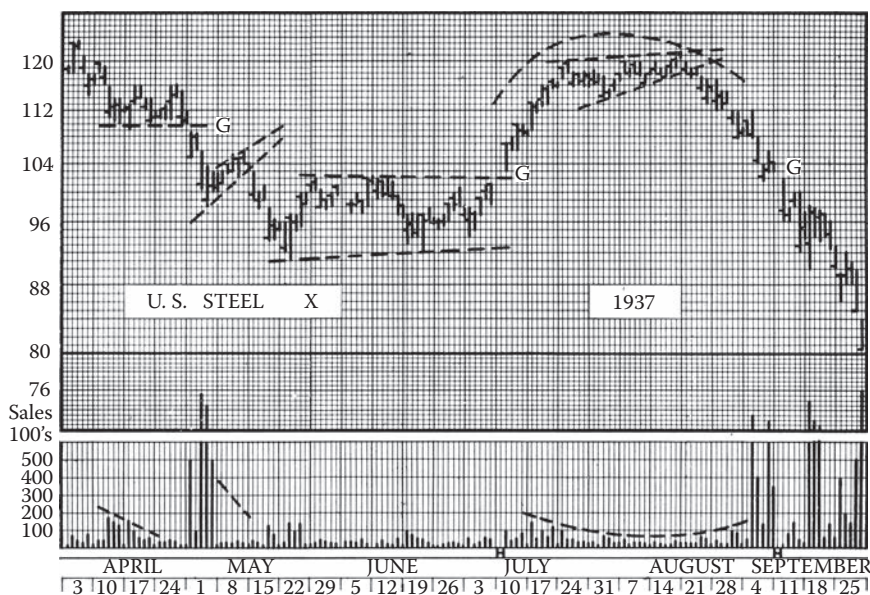


Figure 10.14 As U.S. Steel approached the Top of its Secondary Recovery in August 1937, its price fluctuations tended to grow narrower, between upward sloping but converging boundaries, while volume diminished. This pattern—a Wedge—carried a definitely Bearish message. The entire swing from July to the end of August was essentially a Rounding Top. The three Gs mark Breakaway Gaps (see [Chapter 12](#)), the last (September 7) made as prices broke down through a Support Level (see [Chapter 13](#)).

Broadening Price Patterns, it has been so precisely defined, and so often cited in technical writings, that we may well take some time to examine it.

The Orthodox Broadening Top has three peaks at successively higher levels with two Bottoms between them, with the second Bottom lower than the first. The assumption has been it is completed and in effect as an important Reversal indication just as soon as the reaction from its third peak carries below the level of its second Bottom.

Perhaps we can best see what this formation is like if we examine one of the classic patterns that developed in 1929. Our chart ([Figure 10.2](#)) shows the daily market action (price and volume) of Air Reduction from July 1 to December 31 of that year. We have numbered from 1 to 5 the significant turning points within the Broadening Top that ended that stock's Bull Market in October. A Broadening Price Pattern was not detectable until prices had started to move up from the second Minor Low (point 4); by then 3 had formed *above* 1 and 4 *below* 2. New highs at 5 (*a* and *b*), followed by the definite downside breakout at B (nearly 6% under 4), completed the pattern and, according to the rules, signaled a Major Trend Reversal. In this case, there can be no doubt as to the importance of the Reversal indication because, as our chart shows, the price of Air Reduction dropped from above 220 on October 18 to below 80 on November 14, just four weeks later, and the final Bottom was not seen until nearly three years later in 1932.

There are some fine points of this classic example that should be noted. First, a new high, that is, a third and higher Top, was made at 5*a* and the subsequent reaction was halted at 195, well above 4, and succeeded by renewed advance. This looked like one of the advance notices ("failures") to which we have referred on a preceding page, portending an upside breakout. But the example before us will serve to emphasize the warning

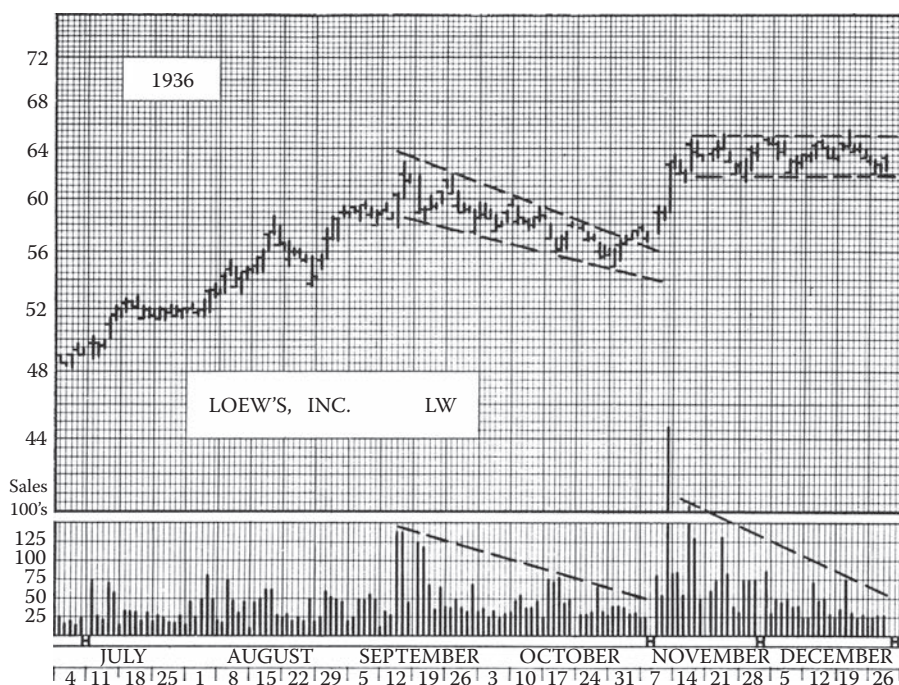


Figure 10.15 An “ideal” Falling Wedge that developed in Loew’s in 1936. Note the volume trend therein, which is irregular but generally diminishing. July produced a small Flag (see [Chapter 11](#)), and at the end of the year, “LW” went into a Rectangle out of which prices “skyrocketed” to 75.

that we attached thereto—that such an indication is not to be trusted until prices have decisively exceeded the previous Top. At 5*b* Air Reduction was traded briefly at 223, 2 points, but less than 3% higher than 5*a*, and the day closed with quotations *below* 5*a*. The break on October 24 (to B) took prices more than 3% under the level of 4. Now occurred a development typical of Broadening Tops—a Pullback Rally (to B) retracing about half of the ground lost between the last pattern Top (5*b*) and the end of the initial breakout move (B). Such a recovery (and failure) will be attempted, according to our experience, in at least four out of five Broadening Top Patterns, and it may not fail until it has regained two-thirds of the preceding decline, although it usually peters out around or even below the halfway mark.

As stated, this is a classic example; there were many others at that time. The very fact that so many evolved at the 1929 peak, which was followed by history’s most disastrous losses, probably accounts for the extremely Bearish implications market technicians have ascribed to the Broadening Top Formation. We regard it now with somewhat less awe; its measuring implications are probably no greater than those of a large, high-volume Head-and-Shoulders, but it is a pattern characteristic of the last stages of a Primary Uptrend.

The insistence that the third Top (our number 5), when followed by a decline below the second Bottom (our number 4), *completes* the Reversal Pattern may be regarded, in the light of experience, as setting too strict a limitation because Broadening Formations do, on occasion, go on to make a fourth and higher Top. Yet this rule may be, and usually is, justified by the fact the overall indications are undeniably Bearish and, hence, one should not wait too long to get out. On the other hand, the requirement for a third Top does seem to be justified on the score that Major Reversals are seldom completed until at least three

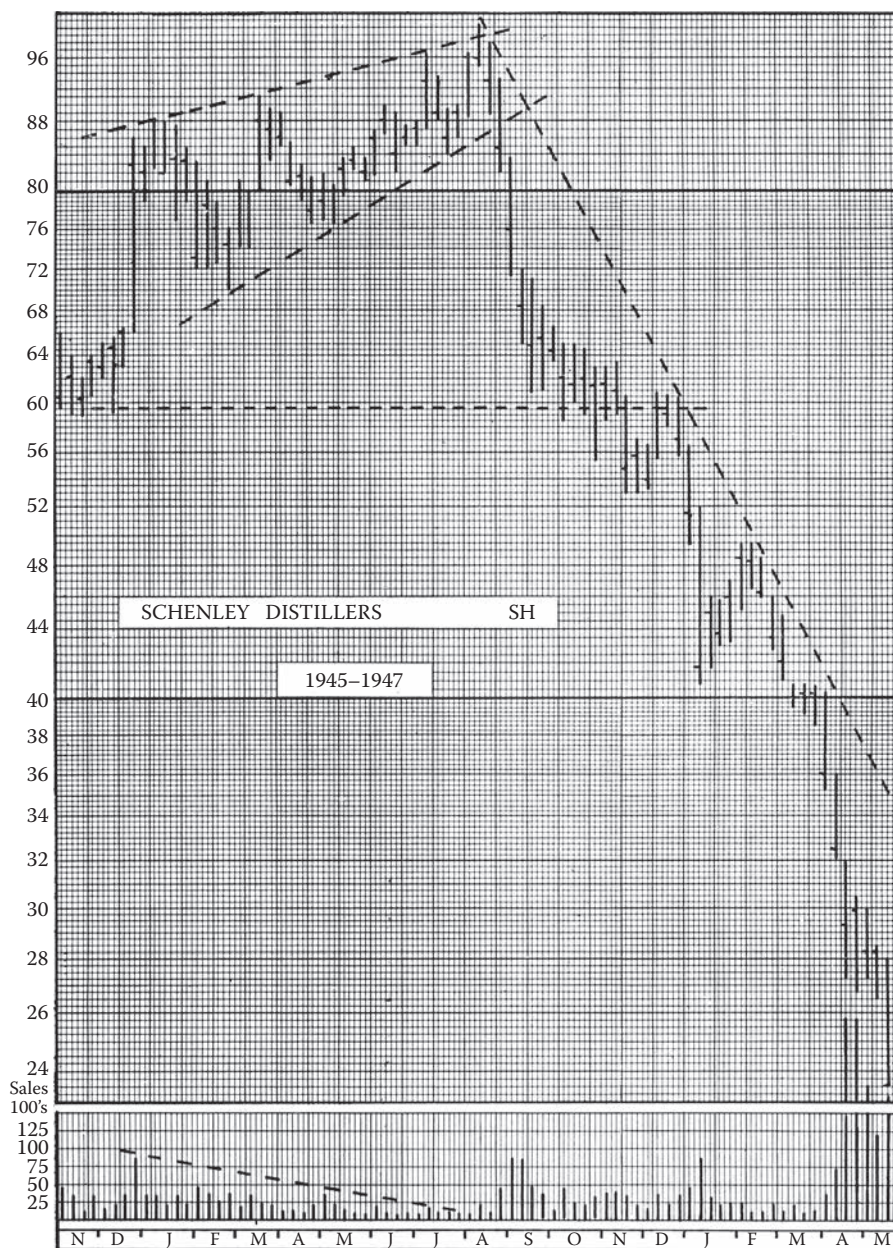


Figure 10.16 Wedges seldom appear at Major Trend Reversals, but Schenley's Bull high in 1946 was made at the end of an eight-month Rising Wedge, plainly seen on its weekly chart. The dashed line at 60 marks a Support Level (see [Chapter 13](#)) that served to stem the subsequent decline for nine weeks.

attempts have been made to push prices on in the direction of the previous trend. This is the reason why pioneer technical students lumped together many formations under the classification "Five-Point Reversals." The Broadening Top is a Five-Point Reversal (our numbers 1-5) and so it is a Head-and-Shoulders. A Broadening Top might, in fact, be called a Head-and-Shoulders with a high right shoulder and a down-sloping neckline.

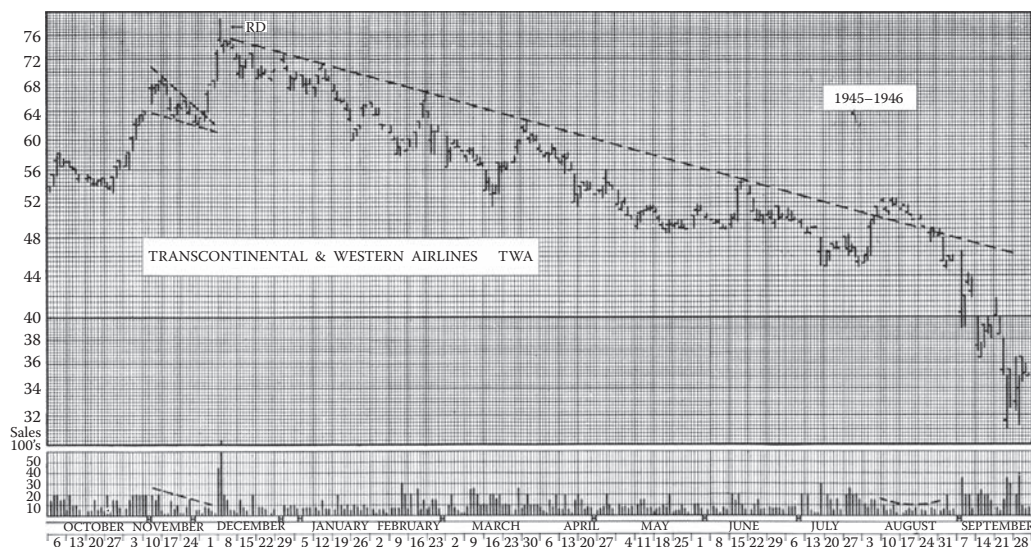


Figure 10.17 There are many interesting and technically significant features in this 12-month daily chart record of “TWA.” Note the extraordinary One-Day Reversal, December 3, which marked its Major Top. Although the next four weeks produced a sort of poorly formed Descending Triangle, the Reversal Day was the only clear-cut and unmistakable signal to sell. When you study Pennants, turn back to this chart for its November Pennant. Its long Intermediate Down Trendline was tentatively broken in August 1946, without confirming volume (see [Chapter 14](#)). Note that at no time during the decline did a “Buy” Pattern appear.

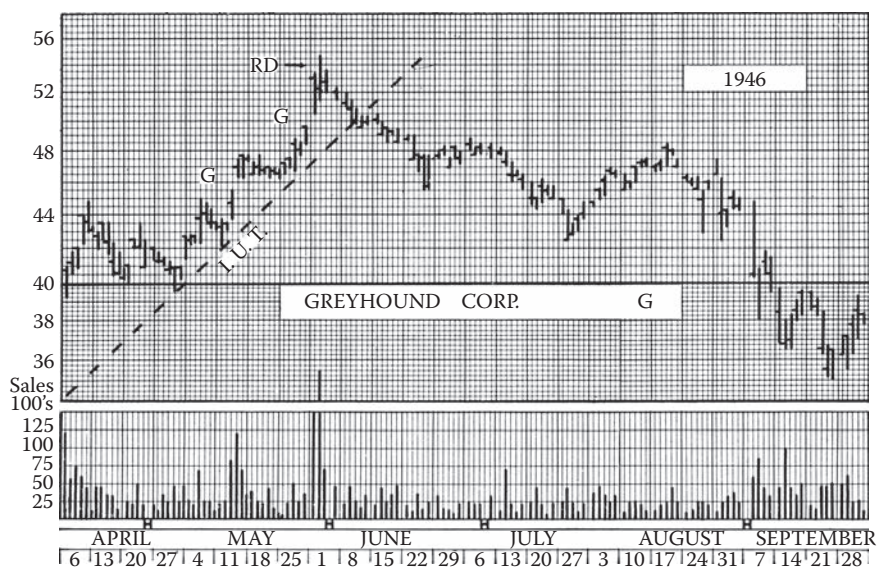


Figure 10.18 The strong One-Day Reversal that marked Greyhound’s 1946 Bull Market high; note the climax volume. A less conspicuous Reversal Day appeared on August 26. It is suggested the reader go back over all charts in the preceding chapters; he will find many Reversal Days of greater or lesser consequence. Many gaps (G) were of measuring type (see [Chapter 12](#)).



Figure 10.19 Apple, 1987 Reagan Crash. Does this plunge appear to be out of the blue? Not really. Numerous signs are given: break of major trendline; short-term momentum down before the crash in an environment of extreme top psychology; then the crash itself, the Panic Selling exhibiting the typical pattern of short covering; and then further decline.

Why no Broadening Bottoms?

All of the other types of Reversal Formations we have studied thus far can occur as either Tops or Bottoms; they can develop at the end of a decline to turn the trend up or at the end of an advance to turn the trend down. But this does not seem to be true of the Broadening Formation. It has been assumed in the past that Broadening Bottoms must exist, but the writer has never found a good one in his examination of the charts of thousands of individual stocks over many years, and only one or two patterns that bore a resemblance to it in the charts of the Averages. Apparently, the circumstances that create Broadening Formations do not exist after a prolonged decline in prices. This would seem to bear out our earlier characterization of this sort of pattern as suggesting active, excited trading with much public (and, hence, not too well-informed or managed) participation. Such conditions are naturally associated with the final phases of a Bull Market.

Right-Angled Broadening Formations

Price patterns of the “Inverted Triangle” shape, having a horizontal Top or Bottom boundary, occur about as often as the symmetrical type, which is to say, not nearly as often as true Triangles, Rectangles, and so on. In the mid-twentieth century, there were very few of them (EN9: *Still scarce in the 2000s*). Although the true Right-Angle Triangle with a horizontal top line and up-slanting bottom line is called an Ascending Triangle, just as its counterpart with

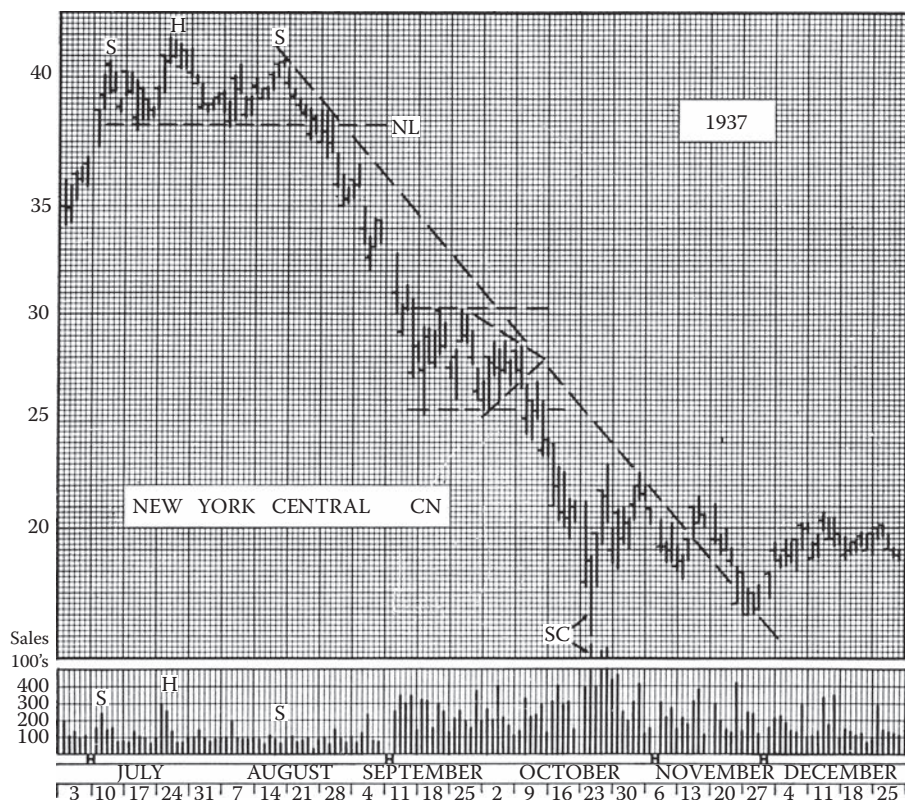


Figure 10.20 The Panic Selling of October 19, 1937, produced a conspicuous Climax Reversal Day in nearly all leading stocks, as well as in the Averages. This New York Central chart shows, beside the Selling Climax (SC), its Head-and-Shoulders Recovery Top of July–August and a Consolidation Rectangle that ended as a Triangle in early October. “CN” made a final Bear Market low the following March at 10½. On a logarithmic price scale, its down trendline from August was not broken until June 1938.

a horizontal bottom boundary and a down-slanting top boundary is called a Descending Triangle, we cannot apply these terms to the Inverted or Broadening Forms. Generally speaking, Right-Angled Broadening Formations carry Bearish implications, regardless of which side is horizontal, in nearly the same degree as the symmetrical manifestations.

Obviously, however, they differ essentially from Symmetrical formations in one respect: a horizontal side indicates either accumulation or distribution at a fixed price, depending on which side is horizontal. Logically, it follows any decisive break through that horizontal side has immediate forceful significance. Thus, if a Broadening Price Pattern *with a flat top boundary* develops after a good advance, and if prices finally burst up through that top line on high volume and close above it to a conclusive extent (roughly 3%), then it is safe to assume the preceding uptrend will be resumed and carried on for a worthwhile move. This does happen, although it is rare. The odds favor the opposite, that is, the eventual victory of the forces of distribution that created the horizontal Top and a breakaway into an extensive decline.

Moreover, if an advance is to ensue from a Flat-Topped Broadening Formation, chances are the third reaction in the formation will be attended by much diminished trading activity

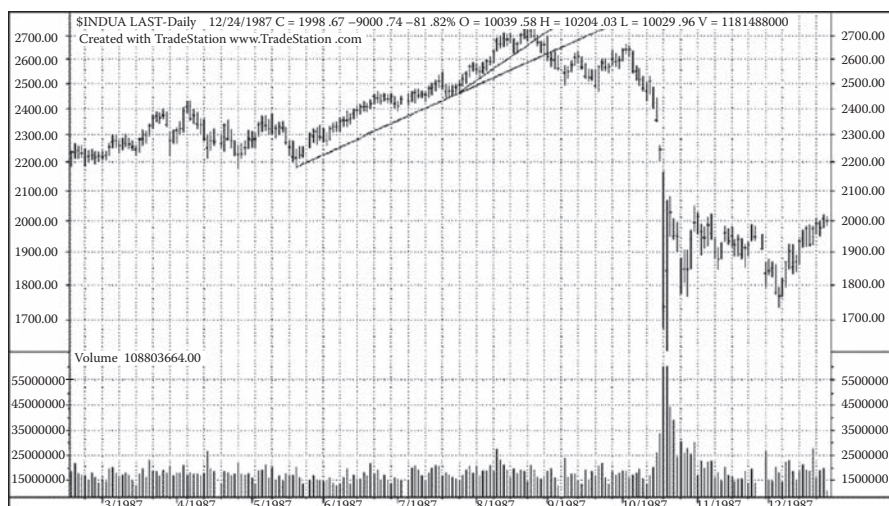


Figure 10.21 Dow Industrials, 1987 Reagan Crash. Rumors proliferated—ironically, one that Reagan had Alzheimer’s. Proximate cause: professional panic exacerbated by an ill-considered portfolio insurance scheme propagated by academics. Note the authoritative (lower) trendline here (75 days) is broken by more than 2% (Magee’s suggestion) in early September. The broken upper trendline (25 days) would have pulled the ripcord for the more agile trader. Savvy investors were hedging and liquidating through September, and fund managers panicked in October. According to the Brady Report, Hull Trading Co. bought the bottom on October 20, thus saving American capitalism.

instead of the continued high or irregular volume characteristic of Bearish Broadening Movements; either it or the fourth reaction will be halted and reversed *above* the low point of the preceding reaction. This turns the formation into a *Consolidation Head-and-Shoulders*, a Continuation-of-Trend Pattern, which we shall take up in [Chapter 11](#). The message here for the trader owning a stock whose chart begins to develop a Broadening Formation of this type is to watch the third reaction. If it carries below the second and volume does not fall off to a marked degree, sell out on the next rally. (You can always repurchase the same stock, if you wish, without much “loss of position” should prices finally and, improbably, recover and push up through the Top.)

Right-Angled Broadening Formations with horizontal lower boundaries (flat Bottoms) almost always break down. Once prices have fallen below the lower boundary line, there is frequently a Pullback Rally to that line, either in a few days or in two or three weeks, similar to the Pullbacks that so often follow the breakdown from a Head-and-Shoulders Top.

(Note that the third or fourth rally in a pattern that starts out as a Flat-Bottomed Broadening Formation may fail to carry prices as high as its predecessor, in which case a Head-and-Shoulders deal will instill. In other words, every Head-and-Shoulders begins as a Broadening Formation and the statement of that relation takes us logically to our next type of Reversal picture.)

The Diamond

The *Diamond* Reversal Formation might be described either as a more or less Complex Head-and-Shoulders with a V-shaped neckline or as a Broadening Formation which, after two or three “swings,” suddenly reverts into a regular Triangle that is nearly always of the Symmetrical form. So far as the accompanying volume pattern is concerned, the latter is

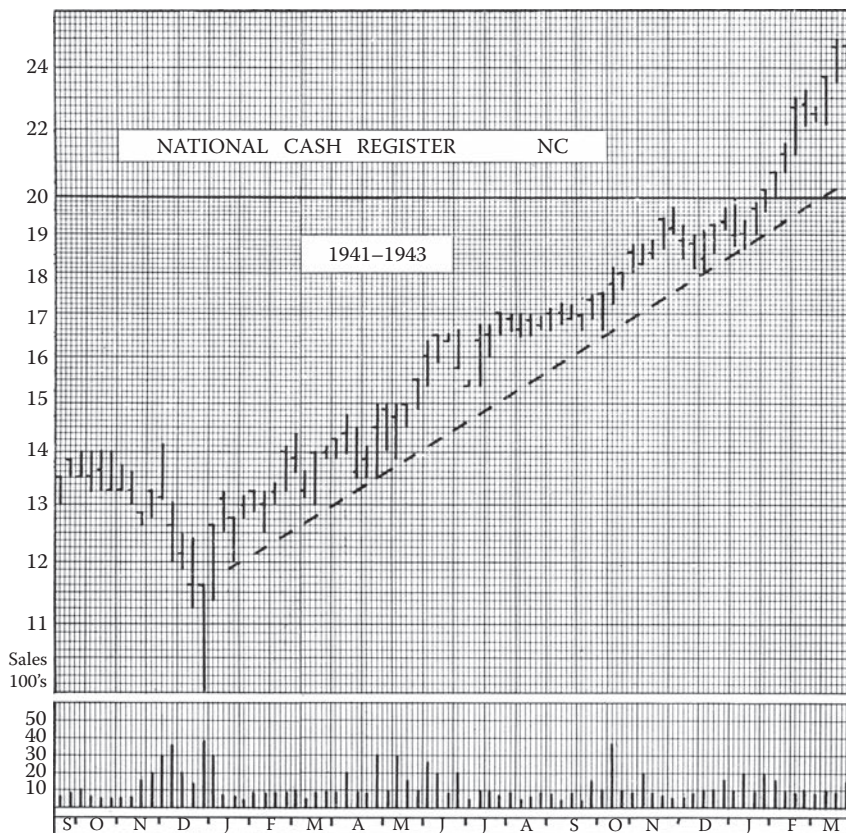


Figure 10.22 The Selling Climax discussed on the preceding pages is typically a one-day phenomenon, and on only one occasion (April 1939) in history has a general market One-Day Reversal signaled the final low of a Primary Bear Trend (although many individual stocks evinced a Selling Climax on their charts in March 1938).

possibly the better description; its name obviously derives from its pictorial resemblance to the conventional diamond shape.

Although it is fairly conspicuous and easily detected when it appears on the charts, the Diamond is not a common pattern. Since its development requires fairly active markets, it rarely occurs at Bottom Reversals. Its “natural habitat” is Major Tops and the High-Volume Tops that precede extensive Intermediate Reactions. Many Multiple Head-and-Shoulders Formations are borderline Diamond cases; that is, they permit the drawing of slightly bent necklines. The reader is cautioned, however, against trying too hard to make Diamonds out of price patterns of the Head-and-Shoulders type. There is a temptation to do so because a V-shaped neckline may promise to give an earlier (and, hence, more profitable) breakout signal than the straight neckline of the Head-and-Shoulders. It is much safer to stick to the latter, however, unless the second half of the formation consists of a series of clean-cut, converging Minor Fluctuations, which plainly demands definition by converging boundary lines, and unless activity shows some tendency to diminish during this period as it would in a Triangle.

The Diamond requires little further comment. Our illustrations will suffice to acquaint you with its typical details. It carries a minimum measuring implication that, having studied



Figure 10.23 A church spire top in Qualcomm. The December gap might be mistaken for a buy signal, as might be the runaway days, but they are actually hand-engraved invitations to leave the party with near progressive stops a hair off the day's low. Also valid is the exit on the Key Reversal on day two after the gap. How does the trader know this is a blow-off and not a signal to pyramid? By the age, length, state, and slope of the market. When trendlines go vertical, blow-off management must be used. The return to the base of the first runaway day is notification that it is a Bull trap—the first Bull trap. The second Bull trap is the breakout of the triangle in March. A wonderful chart filled with *fin de siècle* and *fin de millennium* lessons.

the Head-and-Shoulders and Triangle formulas, you can probably deduce for yourself. Prices should move *at least as far* from the breakout point as the greatest width in points of the pattern from its Top (head) to Bottom (V in neckline). This, it must be emphasized, is a minimum rule and subject only to the usual qualification that a Reversal Formation must have something to reverse. Generally, the new trend carries prices eventually well beyond the minimum measurement.

Wedge Formations

All of the chart formations we have discussed up to this point can and do develop at changes in the Major Trend of prices; a few of them seldomly occur at any other change than a Major Reversal. We have to consider three patterns that are ordinarily Minor, or, at most, only Intermediate in their trend implications. They are useful, nevertheless, in trading operations. One of them, the *Wedge*, we have already alluded to (in [Chapter 8](#)) as having some resemblance to the Triangles.

The *Wedge* is a chart formation in which the price fluctuations are confined within converging straight (or practically straight) lines but differs from a Triangle in that both boundary lines either slope up or slope down. In a Symmetrical Triangle, the Top border slants down, whereas the Bottom border slants up. In Right-Angle Triangles, one boundary slopes either up or down, but the other is horizontal. In a Rising Wedge, both boundary lines slant up from left to right, but because the two lines converge, the lower must project at a steeper angle than the upper. In a Falling Wedge, the opposite is true.

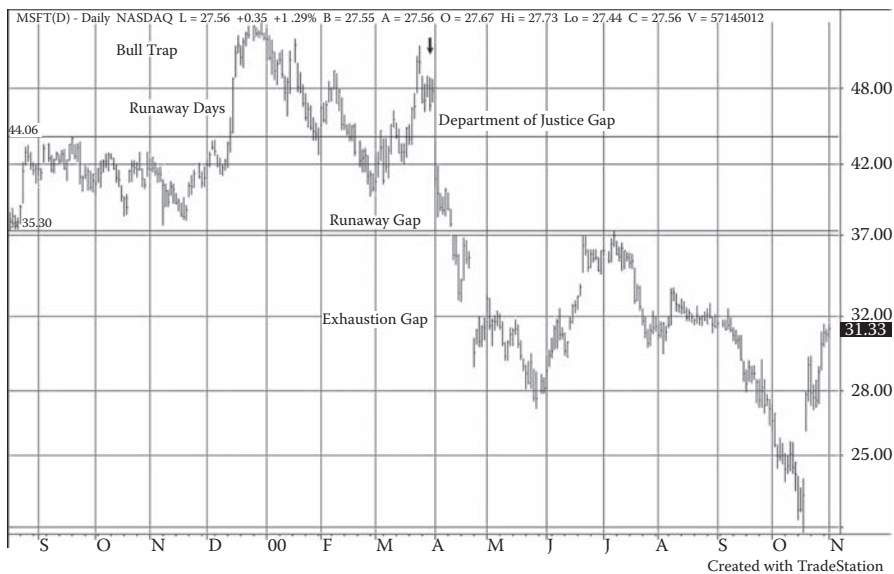


Figure 10.24 Microsoft. A Key Reversal Day in March. Department of Justice breakaway gaps: runaway gaps, exhaustion gaps. Selling Climax. As usual, further lows are achieved. A cornucopia of chartists' delights.



Figure 10.25 eBay. As eBay broke its trendline and drifted sideways, it became a good subject for Key Reversal Day trading. Note several instances.



Figure 10.26 If you cannot deliver groceries electronically what good is the internet? Meg Whitman (a competent, well, more than competent, CEO) and eBay found a use for it: the biggest flea market ever invented (and growing every day). Every military commander knows the axiom, Exploit Success! and eBay exploits and exploits and exploits. Is there a fundamental lesson here for the technician? Absolutely. Although the technician should be able to take a nameless chart and trade it competently (CEO of his own ship) no *real* information or data should be ignored. In this case, the real information—that eBay was an 800-pound gorilla (or flea)—fit the chart perfectly. So eBay separated itself from a bunch of nags to run long and hard. Handicappers know to always keep an eye on winning jockeys: Whitman. Ellison at Oracle. Moore at Intel. Gates at Microsoft. Jobs at Apple (and Pixar and NEXT and so on ... and so on ...). In 2005, what is to be done with eBay? Draw a trendline, raise your stops, and sell it if it reverses.

Superficially, one might think because an Ascending Triangle with one horizontal and one up-line is a Bullish picture, the Rising Wedge, with both of its pattern lines up, should be even more Bullish. But such is not the case. Remember, the flat top of an Ascending Triangle signifies a supply of shares being distributed at a fixed price; when that supply has been absorbed (and the rising lower boundary line indicates it will be absorbed), the pressure is off and prices will leap forward. In a Rising Wedge, on the other hand, there is no evident barrier of supply to be vaulted, but rather, a gradual petering out of investment interest. Prices advance, but each new up-wave is feebler than the last. Finally, demand fails entirely and the trend reverses. Thus, a Rising Wedge typifies a situation that is growing progressively *weaker* in the technical sense.

It might be said any advance in prices, no matter what shape it may take on the chart, weakens the technical status of the market. Prospective buyers are—or, at least, should be—more reluctant to pay high prices than low, and owners are more willing to sell at high prices than at low; in other words, any sort of rise tends to increase supply and diminish demand. (Although theoretically true, the preceding statement must be qualified by the fact that rising prices actually attract rather than discourage public buying.) The difference between a Rising Wedge and what might be called a normal Uptrend Channel (of which we

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Figure 10.27 Lucent. Late twentieth- and early twenty-first-century schizophrenia. Runaway Days, Breakaway Gaps. Maalox is to be prescribed for the investor. Ecstasy for the trader. Reversal Days and short-term tactics win the day when the subject is insane. An excellent example of fitting the trader to the stock. Why would a rational investor own such a stock?

shall have more to say later) is the Wedge sets a sort of limit on the advance. Its converging boundary lines focus on a point near where the advance will halt and reaction will set in.

We can state most of the essential facts about the Up-Pointed Wedge Formation in a few short sentences. It can develop either as a sort of Topping-Out Pattern on a previously existing uptrend or start to form right at the Bottom of a preceding downtrend. It (the Wedge) normally takes more than three weeks to complete; a shorter pattern of this shape is nearly always better classified as a Pennant, which we will discuss in the next chapter. Prices almost always fluctuate within the Wedge's confines for at least two-thirds of the distance from the base (beginning of convergence) to the apex; in many cases, they rise clear to the apex, and in some, they actually go a short distance beyond, pushing on out at the Top in a last-gasp rally before collapsing. Once prices break out of the Wedge downside, they usually waste little time before declining in earnest. The ensuing drop ordinarily retraces all of the ground gained within the Wedge itself, and sometimes more. Trading volume in a Wedge tends to follow the regular Triangle Pattern, diminishing gradually as prices move up toward the apex of the Wedge.

The Falling Wedge

Except for the fact it is pointed down, the *Falling Wedge* appears in all respects like the rising form just described, except the price trend that follows its completion differs in character. When prices break out of a Rising Wedge, they usually fall away rapidly, but when they



Figure 10.28 In the caption to [Figure 10.27](#), the editor asked, apparently rhetorically, why a rational investor would own Lucent. The picture here shows what happens when apparently rational investors do not set a stop to protect themselves from irrational volatility. The market knows things investors do not know, but it will reveal these things to the most basic of investors if he reads the chart. This chart is added for the ninth edition to pick up the picture where the eighth left off.

move out of a Falling Wedge, they are more apt to drift sideways or in a dull “Saucering-around” movement before they begin to rise. The Rising Wedge may, therefore, call for quick action to secure profits, whereas with a Falling Wedge, the trader ordinarily can take his time about making his commitment for the ensuing rise.

Both types of wedges should be well defined on the chart. Unless a trend pattern is quite compact with frequent fluctuations, nicely bounded by lines that clearly converge to a point, and their up (or down) slant is marked, the Wedge construction must be considered doubtful. You will find borderline cases in which one of the pattern lines so nearly approaches the horizontal in direction that it resembles a Right-Angle Triangle, and the latter would carry quite different implications for future trend development. It is difficult to lay down any hard and fast rules for distinguishing the two. If one boundary line is *nearly* horizontal, or if the daily *closing* prices tend to fall at about the same level, then the formation is more safely construed as a Triangle. The reader need not let this problem worry him unduly, as he will rarely be left in doubt for long after he has acquired a little experience with charts. One soon gets to recognize the characteristic “symptoms” of the different formations and make correct diagnoses almost instinctively.

Wedges on weekly and monthly charts

Most true Wedges are too short-lived (seldom longer than three months) to take on a recognizable definition on a monthly chart, but they may be spotted occasionally on the weeklies. Long continued, gradual downtrends, when plotted on arithmetic scale, sometimes assume the Wedge form. Thus, an entire Major Bear Decline on any arithmetic

monthly chart may appear like a giant Falling Wedge. This is due to the fact that the up and down fluctuations that compose the Major Swing, while maintaining about the same extent in *percentage*, tend to shorten in terms of points (dollars) as prices move from higher to lower levels. Such Major chart patterns are not the true Wedges we have discussed herein. When plotted on semilogarithmic scale, these same moves would normally show a Parallel or even slightly widening, instead of Converging, Channel.

Rising Wedges common in Bear Market Rallies

As a final note, we might add that the Rising Wedge is a quite characteristic pattern for Bear Market Rallies. It is so typical, in fact, that frequent appearance of Wedges at a time when, after an extensive decline, there is some question as to whether a new Bull Trend is in the making may be taken as evidence that the Primary Trend is still down. When a Major Bear Swing ends in a Head-and-Shoulders Bottom, the last Rising Wedge will often appear as prices rally from the left shoulder to the neckline and just before they break down to the head (final low). A Rising Wedge on an arithmetically scaled weekly chart is almost invariably a Bear Market phenomenon, expressing the diminishing vigor that is the normal property of any reaction against a prevailing Primary Trend.

The One-Day Reversal

We referred in [Chapter 6](#) to a price pattern known as the One-Day Reversal. This particular technical Reversal indication, when taken alone, can be accorded only temporary or strong Minor Trend significance. True, it may appear at the very peak of a long advance, forming perhaps on the high day of the head in a Head-and-Shoulders Pattern, which will be followed by a long decline, but it can hardly be credited with forecasting that entire decline; all it really signaled was the turn in the “head” itself. A One-Day Reversal may just as well occur, for example, at the beginning (the first peak) of a Symmetrical Triangle which only Consolidates instead of Reversing the previous uptrend. Even so, as you can see, it warns us of at least temporary exhaustion of Bullish forces.

On the downside, a One-Day Reversal often appears in magnified and conspicuous form at the end of a Panic Sell-Off, in which case it usually is referred to as a *Climax Day* or Selling Climax. This manifestation of it has special significance, which we shall take up later. First, however, just what is a One-Day Reversal?

To begin, it is a day of unusually high volume, exceeding, as a rule, by a notable margin any trading turnover registered in any one-market session for the past several months. It comes after a fairly long and steady advance (or a similar decline), on which activity has been increasing gradually. Prices push right ahead from the opening gong as if nothing could stop them. Frequently, even the opening sales are so far beyond the previous day's closing level as to leave a large gap on the chart. (We shall discuss gaps later.) The tape runs late and before the advance (or decline) halts, prices have been carried as far in an hour or two as three or four days would ordinarily take them. But the halt does come finally, maybe at the end of the first hour or perhaps not until late in the day. Then quotations “churn,” registering only fractional changes to and fro, with the tape still “fast” and often running late by spurts. Suddenly, the trend reverses and prices move just as rapidly in the opposite direction. The session ends with a final burst of activity that puts the price at the close right back where it started the day. There has been an enormous amount of activity, and quotations may have traversed intraday a range of 2% or 3%, but the net change from the previous day at the end of trading is very small.

One-Day Reversals at Tops appear quite often in the charts of individual stocks that are thin (relatively small floating supply of shares), have had an active advance, and have attracted a large public following. They rarely develop in the Averages. Selling Climaxes (One-Day Reversals at Bottoms), on the other hand, are found conspicuously in the Averages at the end of many abnormal or Panic Declines.

One-Day Reversals, as already stated, do not carry Major Trend implications. The nimble in-and-out trader can capitalize on them—maybe pick up several points if he has funds available and jumps in at the right moment. But, as a rule, the new trend (i.e., the trend at the close of the day) does not carry very far right away; prices usually “work” around in the nearby ranges for some time and build some sort of area pattern before they move away in a swing of Intermediate proportions. The One-Day Reversal, as a phenomenon that occurs frequently within or at the start of more pregnant technical formations, gives an important clue to probable trend developments. In any event, it is an urgent warning to watch closely the chart in which it has appeared to see what pattern of price action may follow and be prepared for the worthwhile move when it comes.

The type of false move or shakeout described in [Chapter 8](#) as occurring at the apex end of a Symmetrical Triangle often takes the form of a One-Day Reversal.

The Selling Climax

In the “bad old days” when stocks could be bought by putting up as little as 10% of their cost in cash and there were no restrictions on short selling, professional operators could (and tradition says they often did) organize Bear Raids to shake out weakly margined holdings. By selling short in quantity at a favorable moment when the “public” had gotten itself pretty well extended on the long side, they could break prices down. Brokers then would send out calls for more margin from their “long” accounts, many of whom could not or would not put it up, with the result of their stocks dumped on the market, which in turn produced further declines. The professionals could then step in, cover their shorts with a profit, and secure a line of long stock for the next advance. Bear Raids of this sort were effectively checked by the imposition of the Securities and Exchange Commission (SEC) regulations, but margin calls and forced selling will always exist as a market factor so long as stocks can be bought on margin and whenever prices drop extensively following a spree of public buying.

Most true Selling Climaxes, if not all, have been produced by distress selling such as referred to in the preceding paragraph. They have come at the end of rapid and comprehensive declines that exhausted the margin reserves of many speculators and necessitated the dumping of their shares at whatever the market would bring. This process is progressive—feeding upon itself, so to speak—with each wave of forced sales jeopardizing another lot of margined accounts, until, at last, millions of shares are tossed overboard, willy-nilly, in a final cleanup. Such is a Selling Climax in which the total turnover may exceed any single day’s volume during the previous upswing. It is a harvest time for traders who, having avoided the Bullish infection at the top of the market, have funds in reserve to pick up stocks available at panic prices.

Obviously, a cleanout day or Selling Climax radically reverses the technical condition of the market, for in its process, shares have passed from weak hands into strong hands at very much lower prices. The ominous weight of potential selling that has been overhanging the market has been removed. Usually, the Panic has carried quotations (although only temporarily, as a rule) well below even conservative values based on current business conditions.

A Selling Climax need not be completed, and the Reversal of Trend actually becomes evident, within a single day. We have classified it as a variety of One-Day Reversal, but some

of them have actually spread out over two days, with the decline exhausted and coming to a halt late on the first day, too near the end of the session to permit much recovery. The next day sees an extensive rally right from the opening gong, as it is immediately apparent then, if not late on the preceding day, that there are no more distress offerings.

The all-time percentage record for Selling Climaxes is held by October 29, 1929. Prices in terms of the Dow–Jones Industrial Average opened that day practically at their high, 252.38, which was more than 8 points below the previous day’s closing level. Panic selling flooded the Exchange from the start; before it was over, the Industrial Average had lost 40.05 points. From that low, 212.33, it rallied in the final two hours to 230.07 for a gain of nearly 18 points and went on up another 28 points the following day. This 1929 climax set the all-time record also for daily turnover: 16,410,000 shares were traded in those five hours, more than twice as many as in any one day during the entire preceding Bull Market. But the low level of October 29 was broken a week later, and the bottom of that particular early phase of the 1929–1932 Bear Market was not reached until November 13. *EN: See comments on the following page on the Reagan Crash of 1987.*

The Panic of 1937 ended with a classic Selling Climax on October 19, another “Black Tuesday” in stock market annals. The Dow Industrials had closed at 125.73 the night before; prices had already fallen without a rally of consequence from a high of 190 in mid-August, and margin accounts were nearly all in a precarious situation. The telephones had worked overtime the preceding day by brokers demanding additional margin, most of which was not forthcoming. When the Exchange opened on the 19th, quotations hit the toboggan under a flood of offerings. By 11:30 a.m., with the Industrial Average around 115, the selling was over and offerings disappeared. An hour later, prices were jumping a point between sales and the day closed at 126.85, recovering its entire loss. Volume on that climax was 7,290,000 shares, double that of any day at the top of the preceding Bull Market. An intraday high of 141.22 was reached 10 days later, but the Panic Low was subsequently broken on November 20, 1937, and that Bear Market finally ended at 98.95 (Dow–Jones Industrials’ closing level) on March 31, 1938.

EN: No wonder investors have instinctual angst on October 19. In 1987, the Bear returned to create another great Panic—on the very same date. From a high of 2746.65 on August 25 the Dow bungeed to a low of 1,616.21 on October 20. The actual full-blown panic took place from October 14 (high 2,485.15) to October 20 (low 1,616.21) with October 19 and 20 traversing a range of 547.95 points or 25% of the market at that point. Top to bottom, 1130 points were lost, comprising a retracement of 41%. The more things change the more they stay the same, as André Malraux is said to have remarked. Actually, he said it in French, which is more elegant, and expresses the same idea: Plus ça change, c’est plus la même chose. Readers should not assume that similar crashes will not occur in the future.

The foregoing were *general market* climaxes, a phenomenon that produces (or rather is produced by) simultaneous selling in practically every actively traded individual issue. A Climax Bottom, as a matter of fact, appears in an individual stock chart, as a rule, only as a concomitant of a general market cleanout, although there are cases in which some particular and completely unexpected piece of bad news affects one certain company and causes panicky liquidation of its shares alone, terminating with a One-Day Reversal. The *Top Reversal Day*, on the other hand, is normally a manifestation of an individual stock rather than of the general market average.

The two outstanding examples of Selling Climaxes (cited above) and numbers of others that have appeared at the conclusion of various Panic Sell-offs offered extraordinary opportunities for a quick turn to the trader who was smart (or lucky) enough to get in at the bottom. He could cash in a few days later with exceptional profits. Professional operators

capitalize on such opportunities. The problem is to recognize the climactic nature of the selling in time to seize the chance—and that is not as easy as it may have sounded in our discussion. Just to emphasize the possibilities of error, there was a 30-point drop, followed by a 30-point recovery, on a turnover of nearly 13 million shares, on October 24, 1929, but the trader who did not grab his profits within 48 hours never had another chance to get out even (in terms of the Averages, that is).

But it is not impossible to recognize a Selling Climax, if you have friends in the Street to keep you informed on the condition of margin accounts and the amount of necessitous selling to be expected. *EN: This information is now not difficult to come by. It is easily obtainable in the general financial press.* The climax comes *after* a decline approaching Panic proportions. The day usually opens with a substantial Downside Gap (opening prices considerably below the previous night's closing); offerings appear too great to be absorbed; prices collapse; volume is extreme; the market is exceptionally "broad" with nearly every listed stock crowding into the record. Then, some time after 11:00 a.m., perhaps not until afternoon, the selling appears to dry up; a few issues continue to decline while others begin to climb. Suddenly prices are jumping, which is the time to act. Buy a stock that has been thoroughly depressed but normally has a good following at all times (e.g., U.S. Steel). Do not hang on too long; take a reasonable profit as soon as it is available and sell, in any event, whenever the recovery shows signs of bogging down.

Remember, a One-Day Reversal is not a dependable Major Trend indicator. Selling Climaxes do not normally occur at the final Bottoms of Bear Markets—weak holdings usually have been shaken out long before that stage is reached. Only one Primary Downtrend in all the record has, in fact, ended with the first Panic Phase, that being the five-month Bear Market of 1938–1939 that was followed by an equally short Bull Market.

Occasionally, a weekly chart will produce a formation that might be called a "One-Week Reversal," in some such conspicuous fashion as is shown above in "NC." In this instance, the subsequent rise proves that a Major change in its technical balance occurred in December 1941. Curiously enough, no other obvious Reversal Pattern appeared on the weekly chart at this turn in the Primary Trend of "NC." (Its daily chart showed an Ascending Triangle.) But this example of a One-Week Reversal is not shown to give the idea that such phenomena carry important technical indications. On the contrary, most "Reversal weeks" are followed by very disappointing moves.

One remaining Reversal Formation, the *Island Pattern*, involves the whole subject of *Gaps*, which will be taken up in detail in [Chapter 12](#); thus, we will defer our discussion of the Island Reversal until then.

Short-term phenomena of potential importance

Very short-term phenomena—of a one-day or a few days' duration—can sometimes be indicative of not only short-term direction, but also give hints as to long-term price behavior. Gaps (see [Chapter 12](#)) and One-Day Reversals (this Chapter) belong to this group. Other short-term patterns of interest include *Spikes*, *Key Reversal Days* (sometimes merely called *Reversal Days*), and *Runaway Days* (sometimes called *Wide-Ranging Days*).

Spikes

On the day it occurs, a Spike is not immediately identifiable for by definition it protrudes Head-and-Shoulders above days before and after if it is at or near a Top and plunges much below the surrounding days if it occurs at a Bottom. So after a day that exhibits an

unusually wide range, the subsequent days must be observed to discriminate the day from a Runaway Day. Both are the marks of a far-ranging battle between Bulls and Bears, with the close giving a clue as to whom the eventual winner will be.

The importance of the spike is highlighted by the following:

1. The strength and length of the action that preceded it.
2. The close of the day, whether up on a Bottom or down on a Top.
3. Its prominence when compared with the days before and after it.

An extremely wide-range day at the end of a long Bull move that closes down after making unusual new highs might even be construed as a one-day signal. Whether one trades on it or not would depend on his particular style and taste and the nature of his trading—long range, scalping, and so on. In fact, the Spike might also be a One-Day Reversal—that pattern in which an opening gap often is followed by avid buying that collapses and closes below the opening or at the low of the day. Such action might be compared with an army pursuing a seemingly defeated enemy only to discover the retreat was a ruse, then turning and fleeing the other way in a rout.

Turn this description on its head and you have a Spike Bottom. It is not infrequent that a Spike will be followed by significant price movement in the opposite direction. [Figure 10.23](#) illustrates a modern Spike. Figures 1.1 and 7.16 show some spikes on Edwards' and Magee's charts.

Runaway Days

A Runaway Day is a day that stands out on the chart as having an unusually long range, often opening at the low and closing at the high, or vice versa for Bear runaways. Here the enemy has retreated precipitously, or treacherously, to draw the Bulls into a trap. The holders and sellers cannot or will not satisfy the eager demand of the buyers and so the price transverses perhaps two to three times the daily range. Although the agile speculator may jump on this charging train and realize a nice scalp, it is the following days that reveal the true significance. Nice consolidation and continued volume will confirm the day as significant while a tapering of volume and rounding or volatile pullback will call into question its validity. Although these days may be taken as hair-trigger buy signals (or sell signals, depending) the return of prices to the low of the Runaway Day will probably indicate the day was a false signal and a trade in the opposite direction is shaping up. See [Figure 7.20](#) for runaways complete with gaps.

One such example is shown in [Figure 10.24](#) in which a bull trap precipitated by a Runaway Day with a subsequent collapse foretold the 50% decline in Microsoft stock in 2000.

Key Reversal Days

The Key Reversal Day pattern occurs when one sees a new high in an up-move and then a close below the close of the previous day. As a short-term trading signal it has much to recommend it, but like every other technical pattern, judgment and timing are required to profit from it. In a Bull Market, there will be some if not many such interim highs marked by Key Reversal Days. On the Key Reversal Day at a major or important Top, the trader shorts the stock on the close with a stop at the high of the reversal day, or slightly above. He may then exit on the profit side on the occurrence of a Key Reversal Day in the opposite direction, or on a profit target, or a chart pattern. If adventurous, he may use the trade as

the first of accumulating a position for an anticipated Bear Market, adding other positions as more significant patterns occur and as support levels are broken.

This pattern also is useful in trading range markets, as shown in some internet stocks from 2000, where trading with Key Reversal Days would have allowed the trader to escape *unscathed* in the minicrash of the NASDAQ in early 2000 (see [Figures 10.25](#) and [10.27](#) for eBay and Lucent.)

Of all the Very Short-Term Patterns, Gaps, One-Day Reversals, Key Reversal Days, Spikes, and Runaway Days, it should be noted that the return of prices to the origination of the formation marks the formation as a false signal and a reason to reverse the trade direction and look for significant profits.

Clearly, these are the tactics of scalpers and speculators, but it profits the long-term investor to know and understand them.



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Consolidation Formations

An army, which has pushed forward too rapidly, penetrated far into enemy territory, suffered casualties, and outrun its supplies, must halt eventually, perhaps retreat a bit to a more easily defended position and dig in, bring up replacements, and establish a strong base from which later to launch a new attack. In the military parlance with which we have all become more or less familiar these past few years, that process is known as *consolidating* one's gains. Although it will not do to overwork the analogy, there is much in the action of the stock market that may be compared to a military campaign. When a stock pushes ahead (up or down) too fast, it reaches a point at which the forces that produced its move are exhausted. Then it either reverses its trend (in a Major or Intermediate sense), reacts to a good Support Level, or *Consolidates* its position, in some sort of "sideways" chart pattern composed of Minor Fluctuations, until it has caught up with itself, so to speak, and is ready to go on again. (For illustrations in this chapter, see [Figures 11.1](#) through [11.18](#).)

We already have had occasion to refer to Consolidation Formations in our study of Symmetrical Triangles and Rectangles; exactly how those two chart formations might either reverse the previous trend or Consolidate it in preparation for its continuation were shown. We noted about three out of four Symmetrical Triangles will turn out to be Consolidations rather than Reversals—and Rectangles in about the same proportion. Even a Flat-Topped Broadening Pattern constructed at the Top of an Intermediate Advance may, despite its normally Bearish implications, be converted into a Consolidation or Continuation Formation if its Flat Top is decisively penetrated on the upside.

A Dow Theory Line in the chart of one of the Averages may be a Consolidation or Reversal Formation, but is rather more likely to be the former than the latter. A Dow Line is, of course, a sort of loose Rectangle. The fact is almost any sort of sideways price pattern, such as is often termed a "Congestion" or trading area, provided trading volume tends to diminish during its construction (and provided it does not show definite broadening tendencies), usually functions as a Consolidation. But most areas of Trend Consolidation are fairly well defined, taking on a recognizable pattern.

Flags and Pennants

We do not need to spend more time here on the Triangles and Rectangles; they have been examined in both their Reversal and Consolidation manifestations in previous chapters. Our first two formations, which are characteristic of Consolidation *only*, are the Flags and Pennants, which are curiously related in certain aspects to Triangles, Rectangles, and Wedges.

A *Flag* looks like a flag on the chart. That is, it does if it appears in an uptrend; the picture is naturally turned upside down in a downtrend. It might be described as a small, compact parallelogram of price fluctuations, or a tilted Rectangle that slopes back moderately against the prevailing trend. Let us consider the Uptrend Flag first. It usually forms after a rapid and fairly extensive advance that produces a nearly vertical, or at least quite steep price track on the charts. On such moves, volume normally shows a progressive increase until it reaches a high rate. This volume (since every transaction signifies a sale as well as

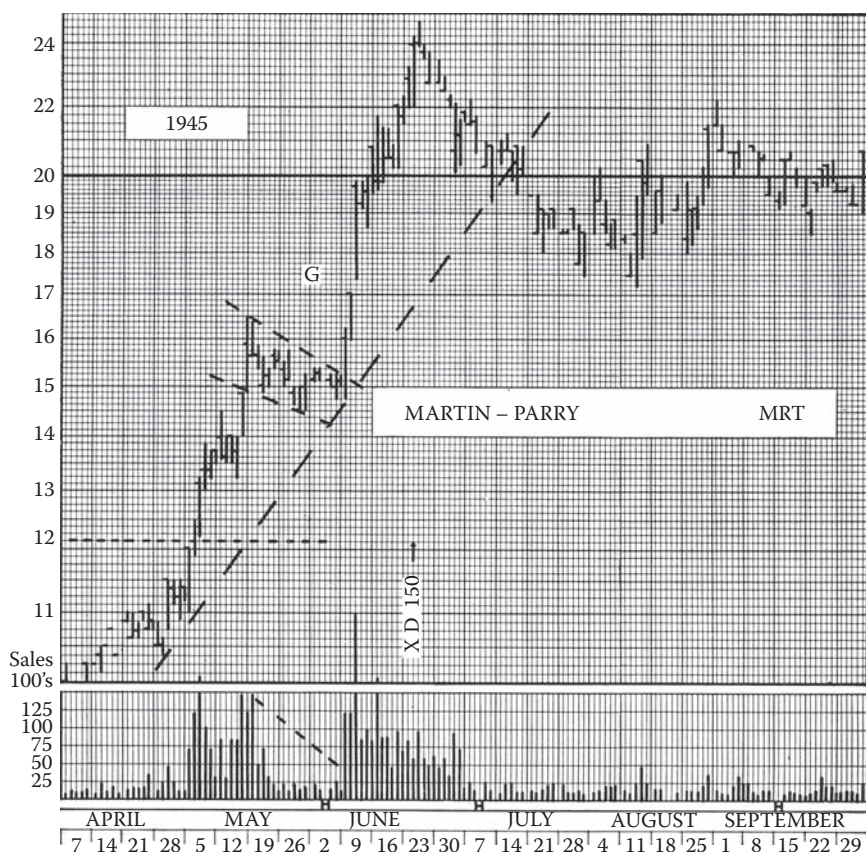


Figure 11.1 This is a typical and practically perfect Flag, constructed May 12 to June 2, 1945, in Martin-Parry. Daily turnover diminished to a low rate as prices settled down for exactly three weeks after their swift advance from 11 to 16 1/2 but held up away from the lower boundary line during the third week, and then burst out topside with high volume in another straight-line push from 15 to 21. Study this chart again when you come to the Flag-measuring formula later in this chapter. The dashes at 12 indicate the upper range of an old Resistance Level (see [Chapter 13](#)).

a purchase) is a warning that many holders of the stock are taking profits. Eventually the pressure of profit-taking halts the markup. Prices “churn” without further gain and then react 2 or 3 points on reduced turnover. A new rally occurs but fails to equal the previous high or attain the previous top volume. Another reaction carries quotations slightly below the preceding Bottom with further diminution of activity and then follows a series of similar Minor Fluctuations, each of whose Tops and Bottoms are successively a trifle lower than its predecessor, and with volume shrinking markedly and constantly as the pattern develops. On the chart, the initial, steep up-move followed by the compact, sideways, and slightly down-sloping price Congestion Area, which can be roughly bounded, top and bottom, by parallel lines, takes on the appearance of a mast (or halyard) with a flag flying from its peak, hence, the name of the formation.

Sometimes each rally and setback within the Flag takes three or four days, rarely more. In other cases, prices will skip back and forth between the upper and lower Flag boundaries in a single day or two, in which event the pattern on the chart consists of an almost solid block of price range lines. The wider the pattern (from top to bottom) the longer time,



Figure 11.2 Another typical Flag of three weeks' duration, August 30 to September 18. This National Gypsum chart overlaps that in [Figure 8.6](#), showing the false move at the apex of the May–June Symmetrical Triangle. A buy signal was given when prices pushed up through the old apex level on August 23 with increased volume. Most interesting is the second Symmetrical Triangle that formed in October–November, an almost exact replica of the first, but with a downside false move at its apex. The sharp increase in volume on November 27 left no doubt as to its being a Consolidation rather than Reversal Pattern. “NG” went on up to 33.

naturally, it should take for each swing within it to be completed. This process of Minor Fluctuations may continue for only five days to a week if the Flag is narrow, or it can go on for as long as three weeks. Daily turnover by that time usually will have shrunk to a relatively low ebb. Then, suddenly, prices will erupt with a new burst of activity from the end of the Flag and push straight up again in another advance that practically duplicates the original “mast” atop which the Flag was constructed.

We have spoken of the Flag pattern as being moderately down-slanting, but the very short and “solid” ones will frequently develop horizontally and look like small squares. (On rare occasions, a pattern of the Flag type in an uptrend will even slope up a trifle.)

Flags form on steep down moves in much the same manner and with precisely the same implications as they do in uptrends. Down Flags, of course, tend to slope up—that is, they simply invert the picture presented by an Up Flag. Trading volume diminishes during their formation and increases again as prices break down away from them.

The Pennant: a pointed Flag

The only important difference between a *Pennant* and a *Flag* is the former is bounded by converging boundary lines rather than parallel lines. The normal Pennant, in other words, is a small, compact, sloping Triangle. It slants down when it appears in an uptrend, and it

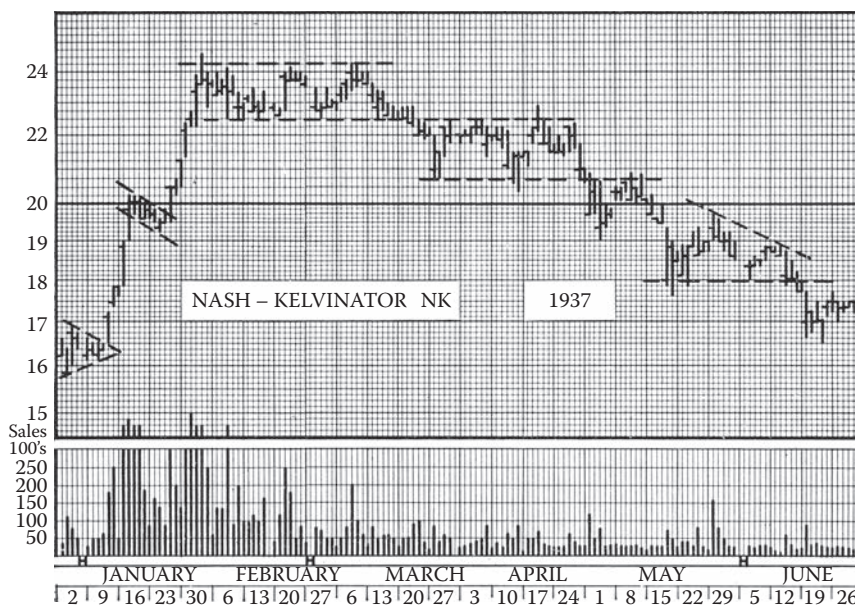


Figure 11.3 Flags of the “Half-Mast” type appear most often in the later and most active stages of a Primary Advance. The above example (January) was the last Consolidation Formation before “NK’s” 1937 Bull Market Top. Note the Rectangle Reversal Pattern in March and the series of step-down patterns that followed.

slants up in a downtrend. It forms, as a rule, after a rapid advance (or decline), and trading volume shrinks notably during its construction. In fact, activity tends to diminish even more rapidly in a Pennant than in a Flag (which we naturally would expect on account of the progressively shorter fluctuations that compose it), and it may drop almost to nothing before the Pennant is completed and prices break away from it in a new and rapid move.

The Pennant might also be described as a short, compact Wedge, characterized by marked diminution of activity. When, as is usual, it slants back against the preceding trend, its forecasting implications are similar to those of the Wedge, in that prices break out of it in a direction opposite to its slant. But there are rarer Minor variations of the Pennant, comparable with those sometimes found in the Flag, in which the price area is very short and “solid” and practically horizontal (like a Symmetrical Triangle), or in which the slope is actually slightly in the same direction as the preceding trend instead of against it. When prices move out of the last-named type, they ordinarily do so, not in a sudden straight-line breakaway, but rather in an accelerating curve with volume increasing gradually instead of abruptly at the break; the whole pattern resembles a curved horn that runs to a long, slender point. Do not let these variations worry you; there is nothing deceptive about their appearance; their kinship to the more common, normal form is quite apparent.

The measuring formula

The same approximate measuring formula applies to the Pennant as to the Flag. They are both “Half-Mast” Patterns that ordinarily form after a fairly steady and rapid (steep) price movement. In applying the measuring rule, go back to the beginning of that immediately preceding move, to the point at which it broke away from a previous Consolidation or

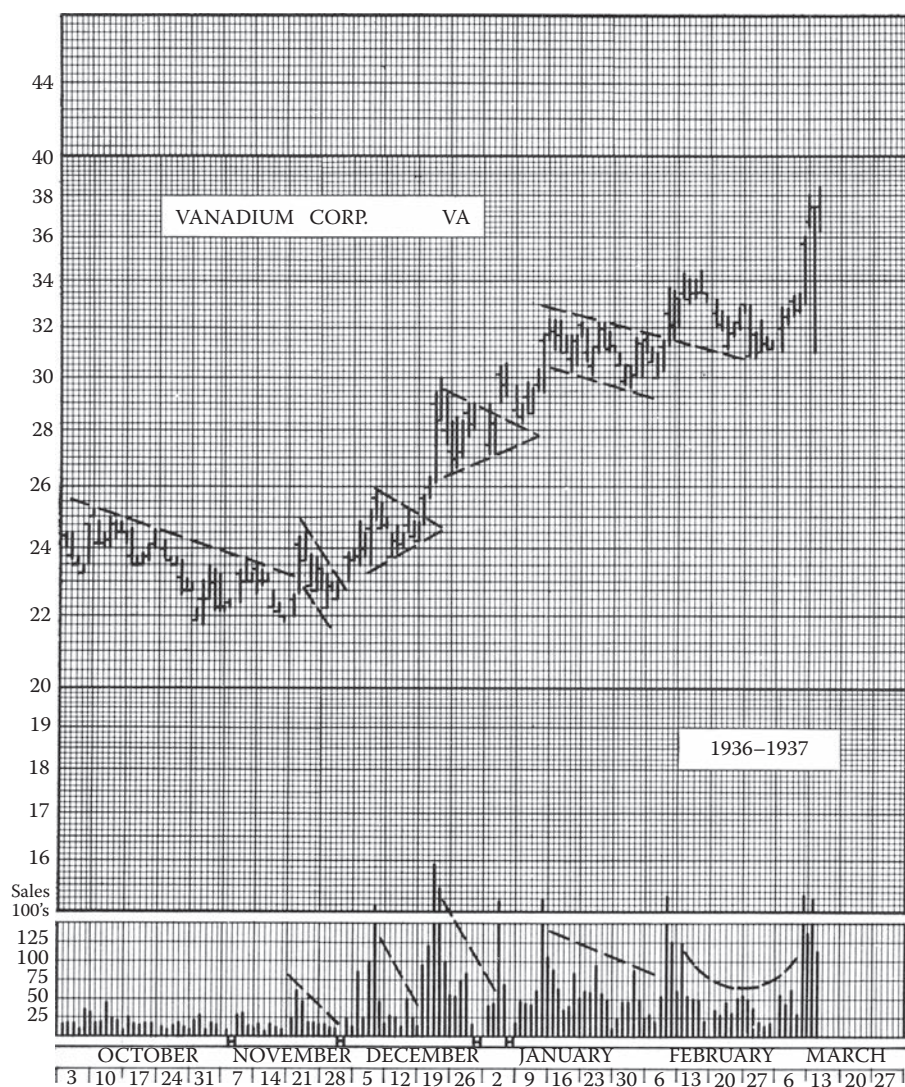


Figure 11.4 Sometimes a stock will make a long series of small Consolidation Patterns in its uptrend, one following right on the heels of another as successive groups of traders buy in while others take their profits on previous purchases. In this sequence of step-ups in Vanadium, the Flag Pattern formed in January 1937 ran a few days over, but the volume breakout of February 4 left no doubt the trend was still up. A final Top was made at 39 1/2 in March. Note the strong buy signal given on December 14. Refer to this record again in connection with Support and Resistance studies in [Chapter 13](#).

Reversal Formation (or through a significant trendline or Resistance Level, with which later chapters are concerned), a point recognizable as a rule by a quick spurt in activity, and measure from there to the Minor Reversal level at which the Flag or Pennant started to form. Then measure the same distance from the point at which prices break out of the Flag or Pennant, and in the same direction. The level thus arrived at is the minimum expectation of this type of Consolidation Pattern. As a matter of fact, advances from Flags

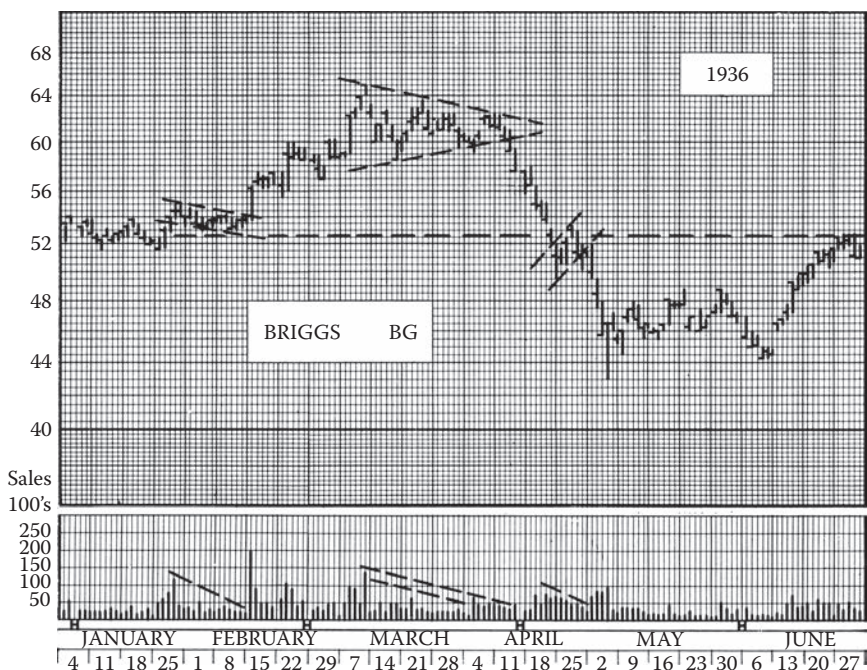


Figure 11.5 A Bull Flag in February and a Bear Flag in April 1936, in Briggs. The Top between was a Symmetrical Triangle. April 30 was a Reversal Day. Prices recovered to 64 1/2 in November 1936, making there a long-term Major Double Top with this March high. The Support-Resistance Zone at 51-53, indicated by dashed line, was still effective in 1946 (see [Chapter 13](#)).

or Pennants in an uptrend generally go farther (in terms of points or dollars) than the preceding move, whereas declines may not carry quite so far. Hence, the formula is best applied on a semilogarithmic chart by measuring actual chart distance rather than by counting points. You can check this by referring to the examples illustrating this study.

Reliability of Flags and Pennants

These pretty little patterns of Consolidation are justly regarded as among the most dependable of chart formations, both as to directional and measuring indications. They do fail occasionally, but almost never without giving warning before the pattern itself is completed. All that is necessary to guard against such failures is to strictly apply the tests as to the authenticity of the pattern incorporated in their description. These are as follows:

1. The Consolidation (Flag or Pennant) should occur after a “straight-line” move.
2. Activity should diminish appreciably and constantly during the pattern’s construction and continue to decline until prices break away from it.
3. Prices should break away (in the expected direction) in not more than four weeks.
A pattern of this type that extends beyond three weeks should be watched with suspicion.

The matter of practical trading on these particular formations will be taken up in Section II of this book, which is devoted to tactics. Our second test deserves some further

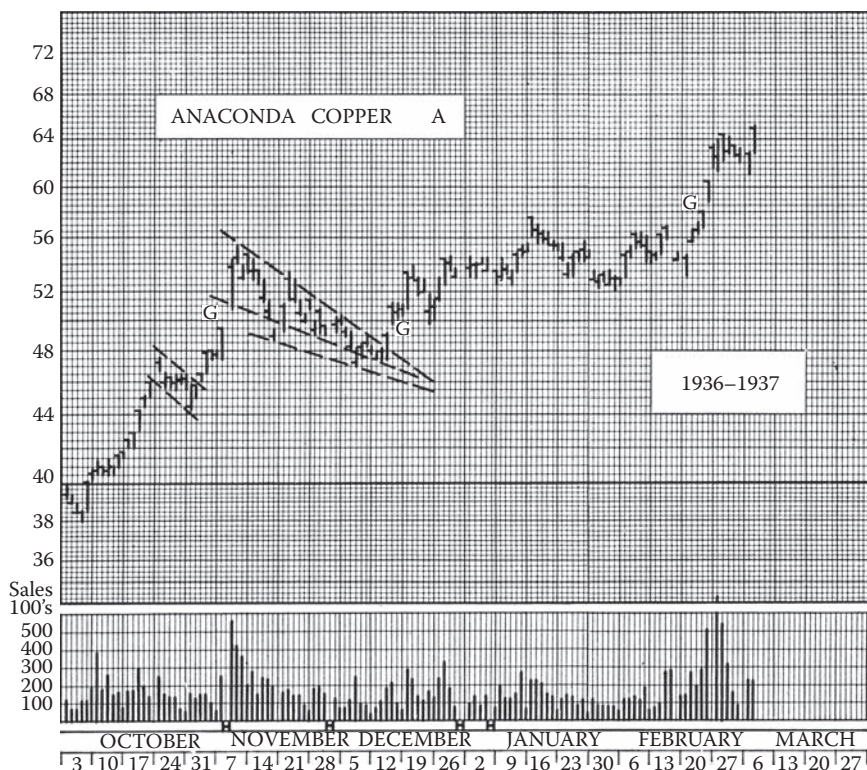


Figure 11.6 The down-sloping, Converging Price Formation of November 4 through December 9 might be called either a short Wedge or a Pennant. Note the small Flag in October; also Runaway Gaps November 4 and February 19, and the Breakout Gap December 10.

comment here though. If a pattern begins to develop on the chart—which, so far as the price picture alone is concerned, qualifies as a Flag or Pennant, but during which trading volume remains high or obviously irregular instead of diminishing—then the outcome is more apt to be a quick reaction against, rather than continuation of, the previous trend. In other words, such high or irregular activity formations are characteristically *Minor Reversal Areas* rather than true Consolidations. Watch the volume half of your chart at all times.

Where they may be expected

Flag and Pennant Consolidations are characteristic of fast moves. Therefore, they show up most frequently in the later, dynamic phase of Bull Markets, after the first accumulation and the more orderly early markup stages have passed. Hence, the appearance of these patterns may be taken as a warning that an advance is approaching its final weeks. The rapid phase of a Major Bear Trend, on the other hand, is its second stage, often characterized by almost “vertical” Panic Declines. The Flags and Pennants that develop therein are usually short—completed in a matter of three or four days rather than weeks. In the late months of a Bear Market, formations that evolve on the charts in the Flag or Pennant similitude often will run too long (four weeks or more), begin to show an increase in volume on the rallies, and be succeeded by only dull and limited reactions.

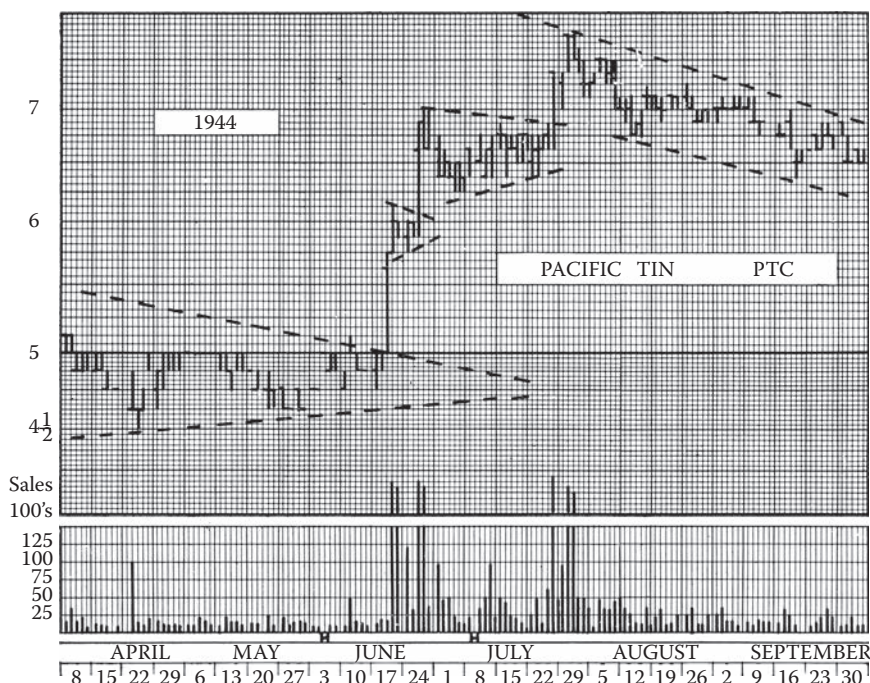


Figure 11.7 An example (in June 1944) of the brief and compact type of price “Congestion” that can be classed as a Flag. The advance here started at 5 from a 13-month Symmetrical Triangle of which only the last two months appear above. The measuring implication of this tiny Flag was not fulfilled until after prices had undergone a sort of Triangular Consolidation in July.

In general, it may be said these particular chart patterns are most common (and most dependable) in uptrends. The appearance, *after* a Major Decline, of price pictures that, at the start, assume the downtrend Flag or Pennant form must be regarded with caution. Unless such developments hold strictly to the limitations we have stated above under the heading of “reliability,” do not trade on them.

Flag pictures on weekly and monthly charts

One of our requisites for a dependable Flag (or Pennant) was it should not take more than four weeks to complete its pattern and break out in a new move. It stands to reason, therefore, that a true Flag cannot show up at all on a monthly chart and barely appears on a weekly chart. You will find price areas on long-range charts, patterns that have taken 8 or 10 weeks to as many months, sometimes a year or two, in their construction, which assume the shape of a Flag, but do not expect them to function as Flags. Examined in detail on a daily chart, these same long areas almost always will be found to contain price formations having entirely different significance. Frequently, what is really a Major *Reversal* Area following a long, rapid advance will look something like a Flag when it is condensed on a monthly chart. So, do not trust such pictures on long-range charts; do not take it for granted that they represent Consolidation for a new rise; find out what the detailed *daily* plotting for the same period says.

The July–August Flag ran for five weeks—too long to be trusted without additional technical evidence (see point 3 under “Reliability of Flags and Pennants”). The danger in

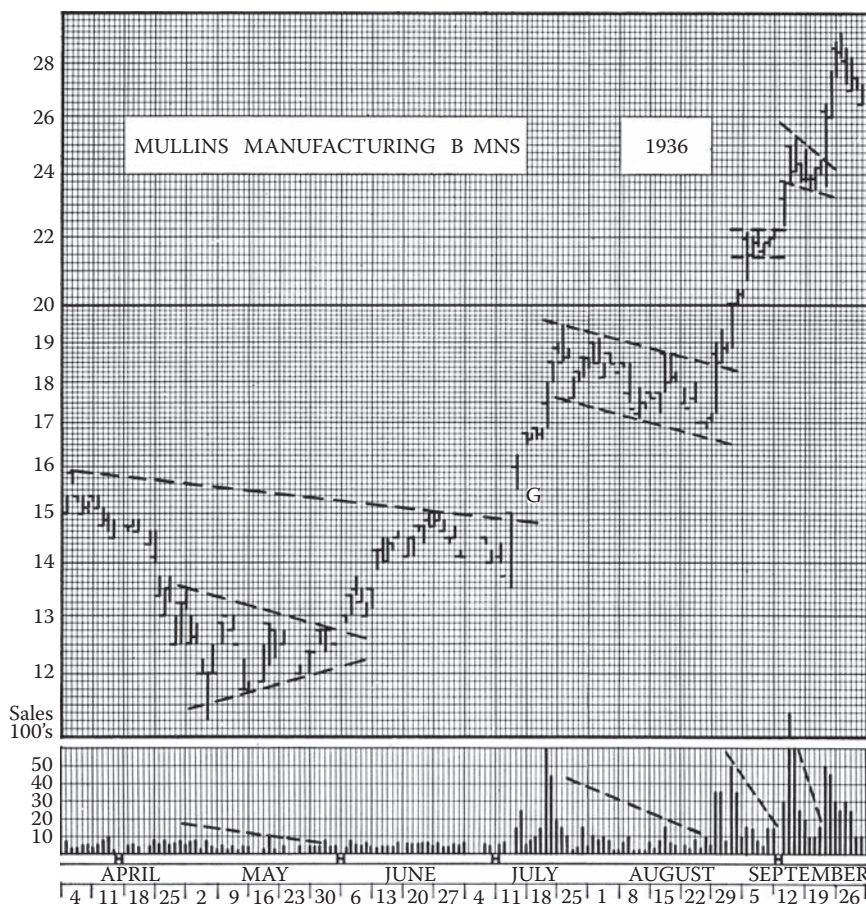


Figure 11.8 Another example of the series of Flag-type Consolidations that may form in a rapid, third-phase Bull Market Advance. Mullins went from 15 to above 39 in six months in 1936, dropped back to 31, and then rose again in March 1, 1937, to its previous high, making a Major Double Top. (Note that “MNS” was split 2-for-1 in 1937)

such prolonged formations is either when the breakout finally appears it will fail to follow through, or prices will keep drifting right on down. For the moment—on August 25—it looked as though this Flag had “gone stale,” but when prices rose above the previous high on August 27, with a smart pickup in volume, purchases were obviously safe.

Rectangular Consolidations: an early phase phenomenon

In contrast with Flags and Pennants, which are typically last-stage Bull Market Concomitants, Consolidations of the Rectangle class are found more often in the earlier phases of Bull Trend evolution. In Major Bear Moves, Rectangles may develop in the first stage just before a Panic Decline, or in the last stage preceding a strictly limited final sell-off. The latter manifestation presumably betokens premature accumulation by interests who feel that prices have already gone low enough to suit their purposes. (They come out all right, if they are able to hold on through the remainder of the Bear Swing and long enough for the next Bull Market to put prices back up again to profitable levels.)

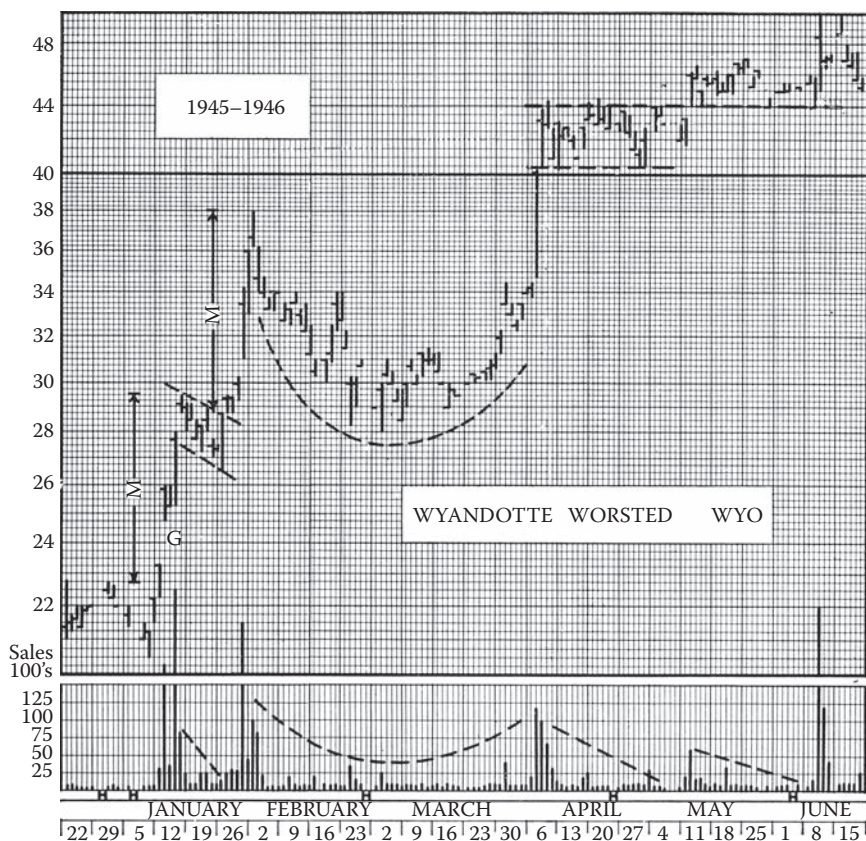


Figure 11.9 The vertical lines marked “M” show how the measuring formula is applied to a Flag Pattern. Note the first measurement is taken from the level at which the mast leaves the previous “Congestion” up to the peak of the Flag. This same distance is then measured up from the Flag breakout. In “WYO,” the formula worked out exactly. Trading commitments should normally have been cashed in above 36 on this move. They might then have been reinstated when it became apparent by April 2 that a Rounding Bottom was completed (note volume) for a new advance.

Head-and-Shoulders Consolidations

All our references to the Head-and-Shoulders Formations up to this point (see [Chapters 6 and 7](#)) have considered that pattern as typifying a Reversal of Trend, and, in its normal and common manifestation, that is most definitely the Head-and-Shoulders function. But, occasionally, prices will go through a series of fluctuations that construct a sort of inverted Head-and-Shoulders picture, which in turn leads to *continuation* of the previous trend.

There is no danger of confusing such Continuation or Consolidation Formations with regular Head-and-Shoulders Reversals because, as stated, they are inverted or abnormal with respect to the direction of the price trend before their appearance. In other words, one of the patterns that develops in a rising market will take the form of a Head-and-Shoulders Bottom. Those that appear in decline assume the appearance of a Head-and-Shoulders Top. By the time these price formations are completed (left shoulder, head, and right shoulder evident), there is no question as to their implications. But at the head stage, before the right shoulder is constructed, there may be—usually is—considerable doubt as to what really is going on.

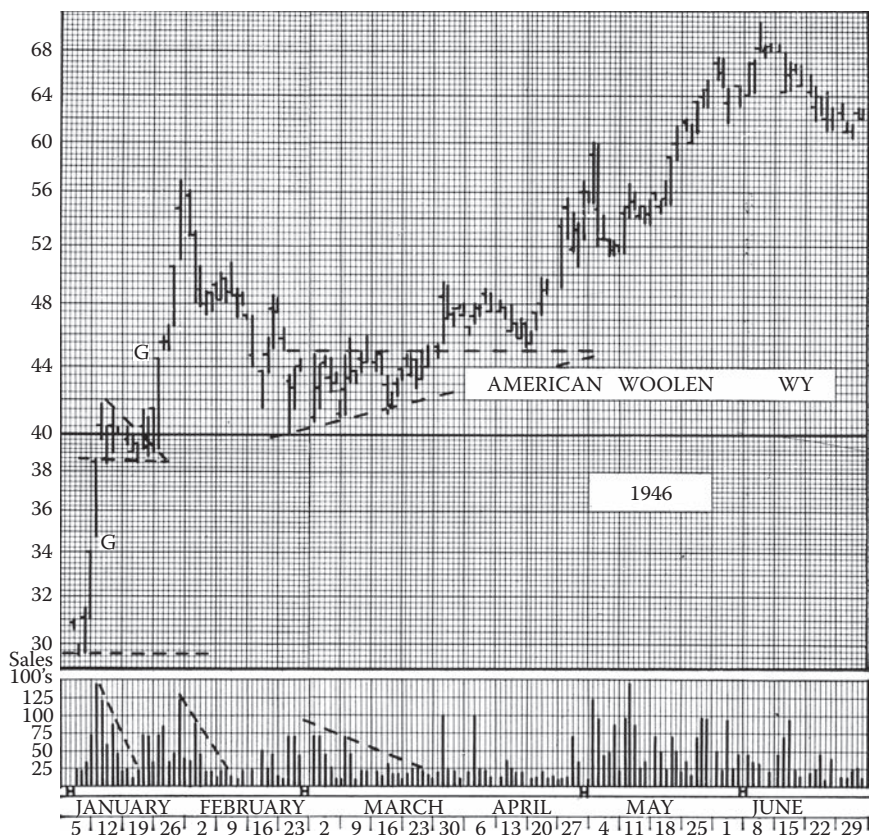


Figure 11.10 A 1946 chart that delighted technicians contains a perfect “Half-Mast” Pattern in January, with measuring gaps (G, G) above and below it; a downside Flag in early February (check measurement); a fine Ascending Triangle at the bottom of this reaction with a Throwback in April, giving an ideal “buy spot.”

The volume pattern in Consolidations of this type does not follow the rule for Reversal Head and Shoulders. In a downtrend, for example, the Consolidation Formation resembled in its price contour a Head-and-Shoulders Top, but the attendant volume will diminish instead of increase on the left shoulder and head as well as on the right shoulder. The same holds true for the “Bottom” Patterns that develop as Consolidation in an advance market; however, Breakouts resemble, in all respects, those arising from Reversal Formations.

Head-and-Shoulders Consolidations of the Complex or Multiple type seldom appear on the charts. Theoretically, they might and should be as easy for the chart technician to handle as the simple forms.

The formula for determining the probable minimum price move (beyond the neckline) from a Head-and-Shoulders Reversal Formation was discussed in [Chapter 6](#). To anyone familiar with the verities of stock market trends and the endless variety of pictures that the charts can present, it is amazing how accurately that formula works out and how often the first consequential move away from a Head-and-Shoulders Top or Bottom will carry through to the point (or a little beyond) implied by the measurement of the formation. But, the same formula applied to Consolidation Patterns of the Head-and-Shoulders form does not work out as well. Such patterns are usually quite “flat,” and the ensuing move generally



Figure 11.11 MO. Talk about your technician's delights. Altria Group throws off some pretty good delights here: a breakaway gap and run days to the downside, a down flagpole with flag, and pattern gaps. But they are *good* pattern gaps and really interesting. Then a triangle complete with a breakaway and an up flagpole with flag. The non-technician probably is suffering from nausea at this point. It is a roller coaster that bodes ill for everyone. Additionally note a completely tradable situation for the alert short-term technician.

extends well beyond the measurement implied thereby, although, in some cases, it may not go quite as far. Consequently, the Head-and-Shoulders formula cannot be applied to Consolidation Areas with the assurance that it sets up a definite and dependable objective; one has to look, in these cases, to a variety of other chart indications to appraise the probable proportions of the move to follow.

Scallops: repeated Saucers

Our next chart picture differs from the Consolidation Formations previously discussed, in that it does not constitute a more or less definite area of Congestion or fluctuation to which one or more critical boundary lines can be affixed. We could, perhaps, take it up as well in a subsequent chapter under the general heading of normal trend action. Yet it is a pattern so characteristic of certain types of stocks and certain types of markets, and so nearly related to the principle of Consolidation for further advance, that it may be better treated here.

When a stock for which there is a large number of shares outstanding, and for which there is, at all times, a fairly active and "close" market emerges from a long-time Bottom (as exemplified by the past history of Radio Corporation and Socony-Vacuum), which will often make a long Major Advance in a series of "Saucers." These successive patterns, each of which resembles, in both price and volume action, the Reversal Formation described in [Chapter 7](#) as a Rounding Bottom, are slightly uptilted, that is, the rising end always carries the price a little higher than the preceding Top at the beginning of the Saucer. The net gain accomplished by each Saucering movement will vary from stock to stock, but there seems

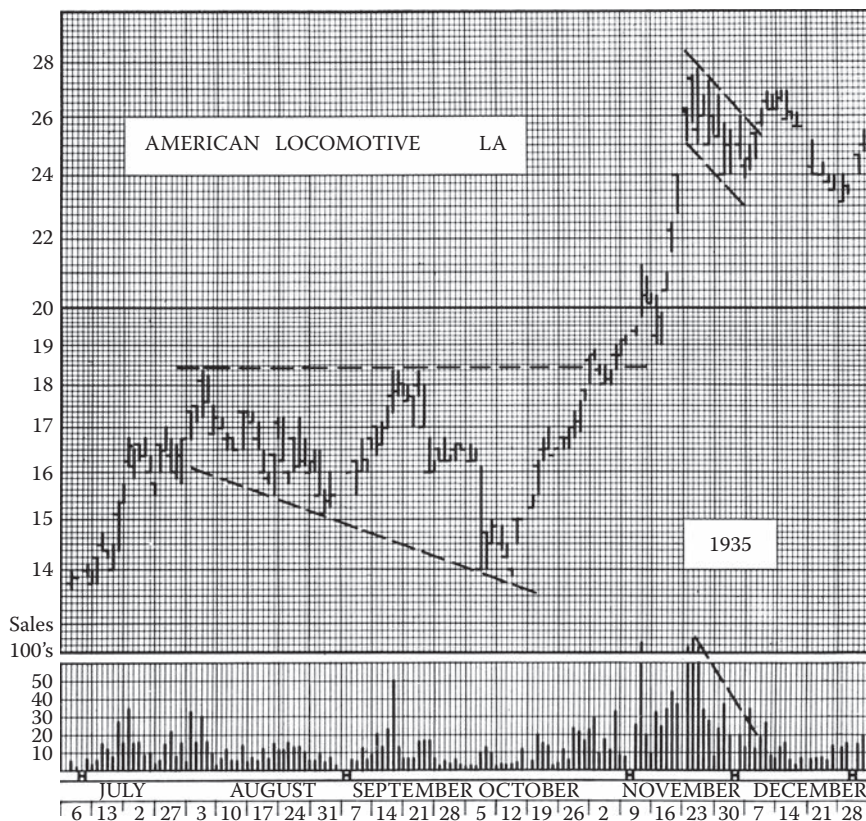


Figure 11.12 A Flag (end of November) that seemed for several weeks to have failed completely. Prices, however, rose quickly to 36 1/4 from their December 23 low, thus finally carrying through according to formula. Note the Flat-Topped Broadening Formation that started the move.

to be a strong tendency for it to amount to about 10%–15% of the price of the issue. The total reaction from the left-hand lip of each Saucer to its Bottom level is usually a little greater, from 20% to 30%, and the length (duration) of the Saucers is normally five to seven weeks, rarely less than three. Thus, the overall advance is slow but steady, in much the same sense as the progress of the man who eventually got out of the deep well by climbing three steps for each two that he slipped back.

The charts of stocks that take this sort of course show a picture of strikingly similar and symmetrical Rising Scallop, one succeeding another with little or no pause between. Trading activity runs up to a peak at the latter stage of each Scallop, as the previous high is approached and exceeded, then diminishes into dullness as prices curve down and flatten out at the Bottom of the next Saucer, picking up again as prices curve up into their next rise.

The trading opportunities afforded by stocks of the Saucering habit hardly require extended comment (although we shall set down some detailed specifications in Section II of this book). The Bottom level of each Scallop is usually easy to detect by watching price trend and volume, and so is the topping out at the end. Yet it is curiously a fact that most “tape watchers” handle such stocks in the wrong way, becoming interested in them and buying when they show activity (“make a new high on volume”) and neglecting them entirely when they are in the dull, rounding-out stage of their trends.

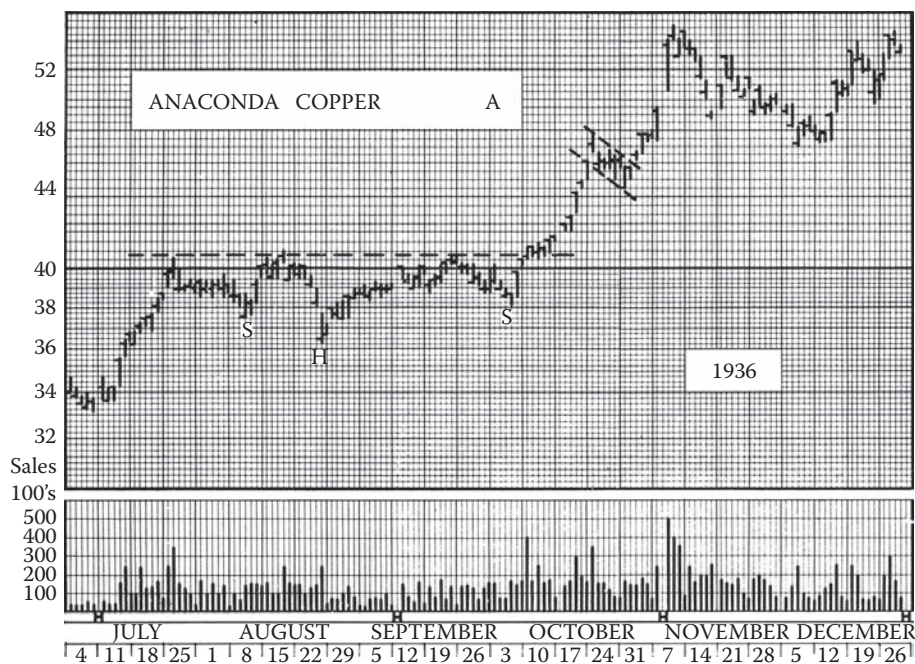


Figure 11.13 Typical of the form that Head-and-Shoulders Consolidation Patterns may take, both as to price pattern and volume, was this development in Anaconda. Measuring formula for the small Flag in October should be applied from the point of breakout through the Head-and-Shoulders neckline.

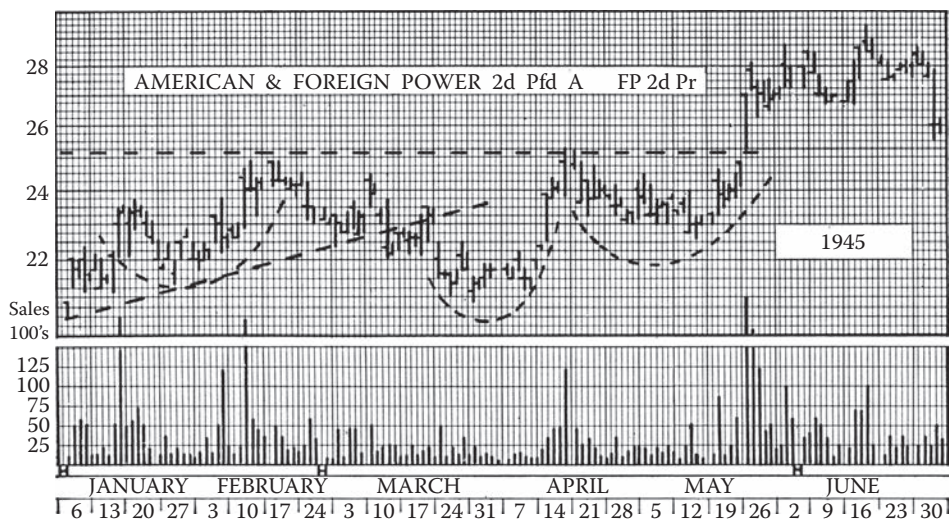


Figure 11.14 A 1945 Head-and-Shoulders Consolidation in which both of the shoulders and the head took a "Saucer" form. Compare price and volume trends. Prices advanced to 31 1/2 in July, came back again to 25 1/2 in August, and then shot up to 40 in November.

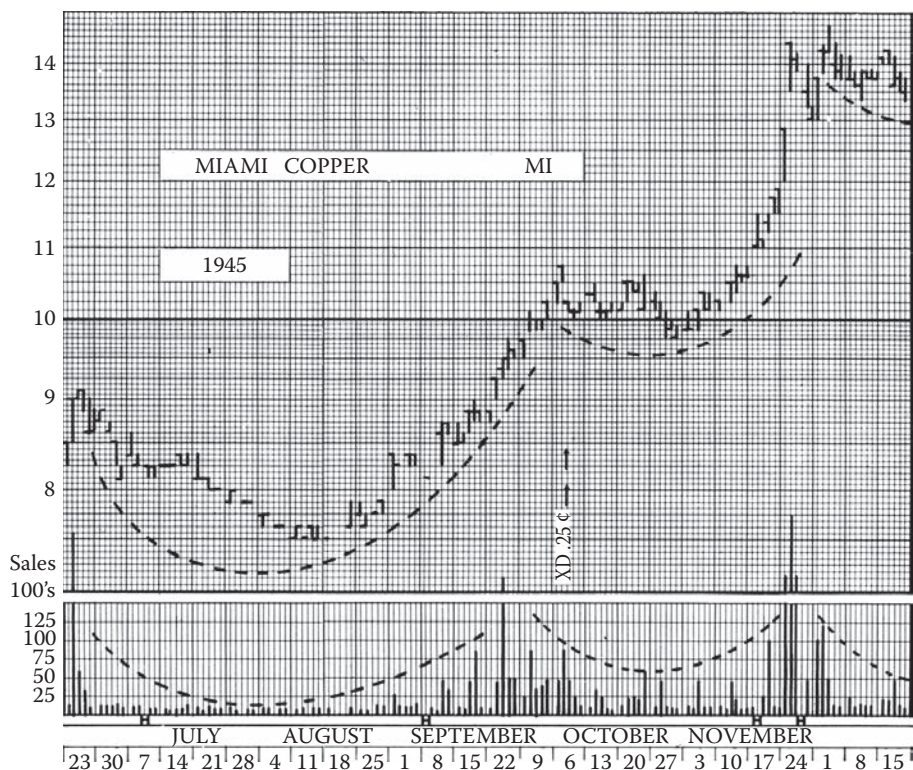


Figure 11.15 Part of a genuine “Scallop” uptrend, typical except for the short duration and relatively small decline in the October Saucer. The next Scallop, which started in December, dropped prices back to 12 1/2 in January, and then carried them to 18 1/2 in February. A four-month Saucer, from February 1945 to June, preceded this chart. Note the position traders found themselves in if they bought at 9 on the “new high volume” in June.

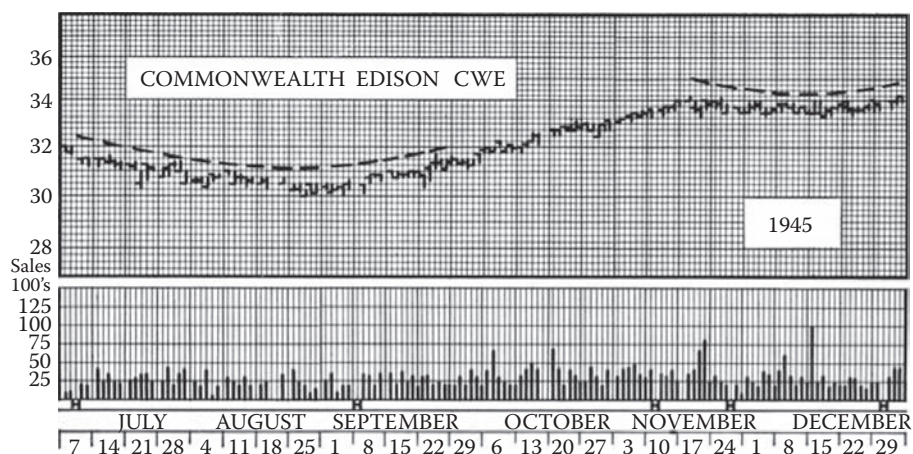


Figure 11.16 Although the Scalping habit characteristically appears in low-priced issues, it is sometimes found in widely held, semi-investment stocks of medium price, such as “CWE.”



Figure 11.17 This chart shows the last five months of a broad, 13-month Saucer-like Consolidation in “IT,” which followed its rapid run up from 3 to 16 in late 1943 and early 1944. “IT” is an erratic actor, and its volume is apt to be particularly deceptive in day-to-day movements. Major Price Patterns in it, however, are dependable. This final phase of its long Consolidation (distribution and re-accumulation) first took the form of a Rectangle (with a premature breakout) and then an Ascending Triangle. Its 1945–1946 Bull Market Top was a massive Head-and-Shoulders.

Many boardroom tape watchers scorn charts with unfortunate consequences to their capital in the long run. Genuinely expert tape readers—those who are able to show fairly consistent profits in their trades—are really extremely rare. (*EN: For “tape readers” substitute “day traders,” 99% of whom are unsuccessful.*) When you do meet such an individual, you will find that he either, in effect, “carries charts in his head” or else takes a careful look at the record before he buys on a ticker showing activity.

As a stock with the Scalping habit finally works up in price to 15 or so, its pattern tends to become less regular; it begins to depart from the smooth, narrow Saucer-like curve of the lower levels. Above 20, it is apt to break away entirely from the Scallop sequence and produce, from there on, more rapid straight-line advances, interspersed with sharp reactions and standard types of Consolidation Formations, which are characteristic at all times of medium- and high-priced issues. (There are exceptions: some high-priced preferred stocks for which there is always a market, but whose trends depend almost entirely on the gradual changes in prevailing interest rates and supply of funds for investment, have a persistent Scallop habit in their Primary Upswings.)

We have named rather specific price levels (15 and 20) in the preceding paragraph, but price is not the sole factor determining the departure of a stock from a Scallop Trend. The only safe assumption is that, once such a habit is detectable, it will be continued until the chart shows a definite divergence from it, and such divergence usually takes first the form

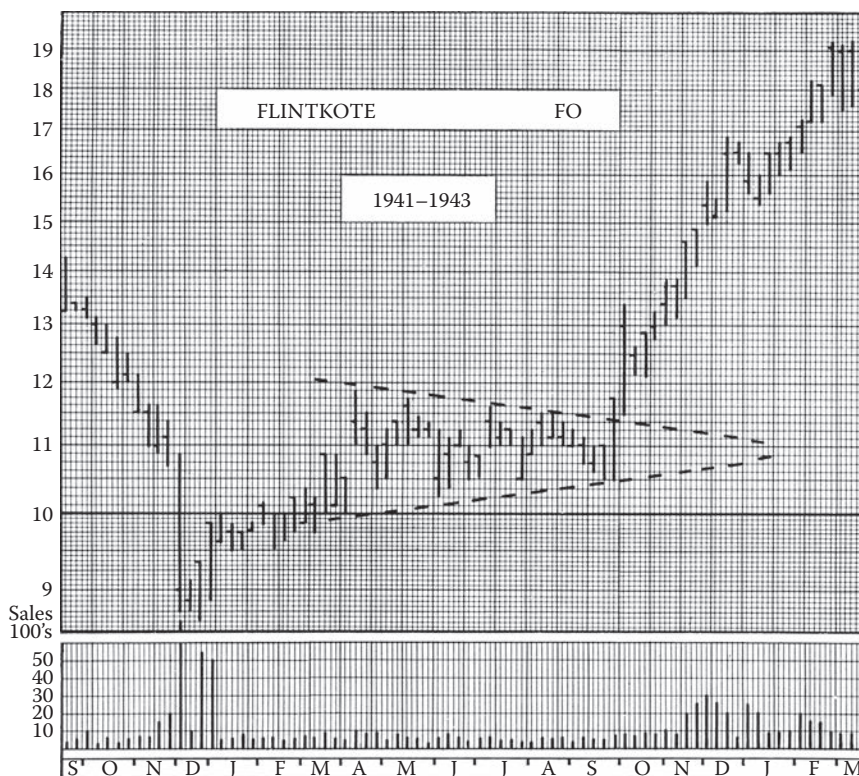


Figure 11.18 There are times when a Consolidation Pattern gives the only good technical signal that a Reversal in an issue's Primary Trend has actually taken place. Although cases of a Major Turn, particularly a Bottom, without some sort of recognizable Reversal Formation on the chart are quite rare, they do occur. This weekly chart of Flintkote illustrates such a phenomenon. A Bear Market low, from which it rose to 47 in 1946, was made at 8 5/8 in December 1941. Without developing any important technical foundation on either a daily or weekly chart, its first upswing took it to 11 7/8 the following April. From that point, it went into a six-month Symmetrical Triangle and then broke out topside at the three-quarters stage on increased volume. This action, plus the fact it immediately thereafter burst up through an old and highly significant Resistance Level at 12, was sufficient to mark it as being in at least a strong Intermediate if not a full Primary Uptrend. The combination of technical developments illustrated in this chart—a large Consolidation Pattern forming just under a Major Resistance and then a breakout upside from both—is something to watch for when it appears a Reversal from a Bear to Bull Trend is due. Resistance Levels will be discussed in [Chapter 13](#).

of a greater-than-wanted advance arising at the end of one of the Saucers. Consequently, if you have previously taken a position in it at a favorable point (near the Bottom of a Scallop), you will unlikely be hurt when the stock finally alters its action.

Very low-priced issues may persist in a Scalloping Trend right up to their Major Bull Tops, and even attempt another Saucer Movement following what turns out to have been the final high, which attempt then fails to carry out the previous successively higher and higher pattern. Such failures are not difficult to detect; the change from the previous pattern appears before any appreciable damage is done to a properly assumed commitment.

Modern versus old-style markets

We have mentioned in our discussion of Reversal Formations that some of them have appeared less frequently in the charts of the 1960s than they did in prior years, and others more frequently. The same is true of Consolidation Formations. Patterns of the compact, strictly defined sort such as Rectangles and Right-Angle Triangles are less common now. Symmetrical Triangles are apt to be somewhat looser than they were in the 1920s and 1930s—not as clean-cut and conspicuous on the charts. Typical profit-taking patterns such as Flags and Pennants seem to be as common as ever, whereas “normal” trend pictures, including those formations associated with normal trend development (such as Head-and-Shoulders, Rounding Turns, and so on), are more common.

The reasons for these changes are fairly apparent; Securities and Exchange Commission (SEC) regulations, higher margin requirements, greater public sophistication, and a more conservative—we might better say more pessimistic—approach to the problems of investment and stock trading generally have all played a part in this evolution. SEC and Stock Exchange vigilance have done away with the flagrant pool manipulations designed to take advantage of the “lambs” of former years. Nowadays, there is even very little of the more “legitimate” sort of syndicate operation planned to facilitate large-scale accumulation or distribution.

It is still possible for “insiders” to hold back for a limited time, or to prematurely release announcements of good or bad portent with regard to the affairs of a particular corporation to serve their personal strategic purposes. But the stock purchase and sales of officers, directors, and principal owners are now too closely watched to allow a great deal of “skulduggery.” (Nevertheless, the average investor had better still be a trifle skeptical as to the probability of any great advance in the market following publication of a good report.)

Collusion between investment advisory services and trading pools has been effectively outlawed. (It is safe to say it never did exist as flagrantly, even in the 1920s, as many amateur traders seem to think.) The SEC (with the thorough cooperation of the Stock Exchange) polices the investment counsel profession thoroughly, constantly, and most effectively. No well-established investment counsel can afford to indulge in deceptive or collusive practices even if the desire were there. Most professionals go far beyond the most reasonable needs to safeguard themselves against any contacts that, however innocent or useful, might be viewed with suspicion.

The old-time “plunger” has not disappeared entirely, but high margins and regulations preventing “Bear Raiding” have made present-day stock markets relatively difficult and unprofitable for him. The out-and-out boardroom gamblers (*EN: day traders rushing to and fro probably exacerbates daily volatility*) still come in, although high margins have cramped them too. In recent years, they have appeared in numbers only in the final stages of Bull Markets. (*EN: Note the day-trading craze that infected the markets in the late 1990s.*) Their operations never did affect the charts much except to augment activity.

On the other hand, higher taxes and greater regulation have most certainly not provided safer, closer, or more stable markets for the small investor. Higher margins have not prevented Panic Collapses. If anything, markets have been “thinner” on the downside, more vulnerable to rapid and drastic decline than they were before modern regulation. We still have the very same sort of Bull and Bear Markets, and much the same sort of market trend development as 50 years ago. The surprising thing is not that a few types of chart patterns that were, on occasion, produced by unregulated trading are now less common, but rather that the great majority of technical phenomena have been practically unaffected. The chart student of 1907 would be quite at home with the charts of 1966. (*EN: And with those*

of 2000. That is why so little change has been necessary to bring Edwards' classic account current to the third millennium. EN9: A note to a note. Pools and manipulators disappear and are replaced by some new pernicious form of skullduggery. Specialists and market makers are hauled before the bar of justice for cheating. In the twenty-first century, hedge funds proliferate like rabbits in Australia. For any exacerbation of volatility they cause, they probably make up for in additional market liquidity. The same patterns keep appearing because, computers to the contrary notwithstanding, humans are eventually responsible for pulling the trigger. It does seem that frequently patterns are not so neat as they were "in the old days." Trendlines, especially horizontal lines, seem to be more "zones" than hard and fast lines and more judgment might be necessary in interpretation. But everything that Edwards says here might have been written in 2005 instead of in the mid-twentieth century.)



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chapter twelve

Gaps

A *gap*, in the language of the chart technician, represents a price range at which (at the time it occurred) no shares changed hands. This is a useful concept to keep in mind because it helps to explain some of their technical consequences, which are illustrated in [Figures 12.1 through 12.13](#).

Gaps on daily charts are produced when the lowest price at which a certain stock is traded on any one day is higher than the highest price at which it was traded on the preceding day. When the ranges of any two such days are plotted, they will not overlap or touch the same horizontal level on the chart; there will be a price gap between them. For a gap to develop on a weekly chart, it is necessary for the lowest price recorded at any time in one week be higher than the highest recorded during any day of the preceding week. This can and does happen, of course, but for obvious reasons not as often as daily gaps. Monthly chart gaps are rare in actively traded issues; their occurrence is confined almost entirely to those few instances in which a Panic Decline commences just before the end of a month and continues through the first part of the succeeding month.

Which gaps are significant?

From the earliest days of stock charting, gaps attracted attention. These “holes” in the price trend graph were conspicuous. It was only natural that observers should attach importance to them and should try to assign some special significance to their occurrence. But the result was unfortunate, for there soon accumulated a welter of “rules” for their interpretation, some of which have acquired an almost religious force and are cited by the superficial chart reader with little understanding as to why they work when they work (and, as is always the case with any superstition, an utter disregard of those instances where they do not work). We refer to this situation as unfortunate not so much because the gap “rules” are wrong, but rather because their blind acceptance has barred the way to a real understanding of a gap’s implications and the establishment of a more logical basis for its uses in trading.

The most common superstition is that “a gap must be closed.” Sometimes it is stated more cautiously in such words as follows: “If a gap is not closed in three days, it will be closed in three weeks, and if it is not closed in three weeks, it will be closed in three months, etc.” There are numerous variations, but they all add up to the belief that a gap must be closed and the trend is not to be trusted until the gap has been covered. It is the latter inference that leads to error.

Closing the gap

But first, what is meant by “closing” or “covering” a gap? Suppose a stock in an Advancing Trend moves up day after day, from 20 to 21, 22, 23, 24, and closes one night at the top of its range for that day, at 25. The next morning it opens at 26 and keeps right on moving up from there. This action leaves a 1-point gap, between 25 and 26, on the chart. Then suppose the rise continues to 28, halts there and is followed by a reaction in the course of which prices



Figure 12.1 The April–June Rectangle on this 1945 chart of “AW” contained a number of insignificant Pattern Gaps. The two larger gaps marked “G” are of the Continuation or Runaway class. Note that prices closed at or near the top on each day that made a gap; neither of these was closed for two years.

slip to 28, and then halts there and is followed by a reaction in the course of which prices slip back to 27, 26, and finally to 25. The return move has carried prices back through the gap area (25–26); the gap has thereby been covered or closed. In brief, a gap is closed when a subsequent price trend comes back and retraces the range of the gap.

Must a gap be closed before prices move very far away from it? Certainly not. Will it be closed eventually? Probably, yes. If it is not closed by the next Minor Reaction, there is a chance it will be covered by the next Intermediate Retracement, and if not then, pretty surely by the next great Major Swing in the opposite trend. But that may be years later—hardly a matter of interest to the ordinary trader. The investor who bought Chesapeake and Ohio shares at 260 on October 21, 1929, counting on the closing of the gap which that issue had made on the preceding Friday, 2 points down from 266 to 264, had to wait nearly *seven years* to get out even. Not until it neared the Top of the next Major Bull Market did CO attain an equivalent market value (65, since it was split 4-for-1 in 1930). In the meantime, he saw his investment shrink in 1932 to less than a sixth of his purchase price. As a matter of fact, there were hundreds of gaps made in the charts of the 1929–1930 markets that never have been covered since then, and many of them, it is safe to say, never will be closed.

If you will think the matter over for a moment, you will see that the probabilities we have stated above for a gap’s being closed apply just as well to a stock’s returning to *any* price range at which it has once been traded, gap or no gap.

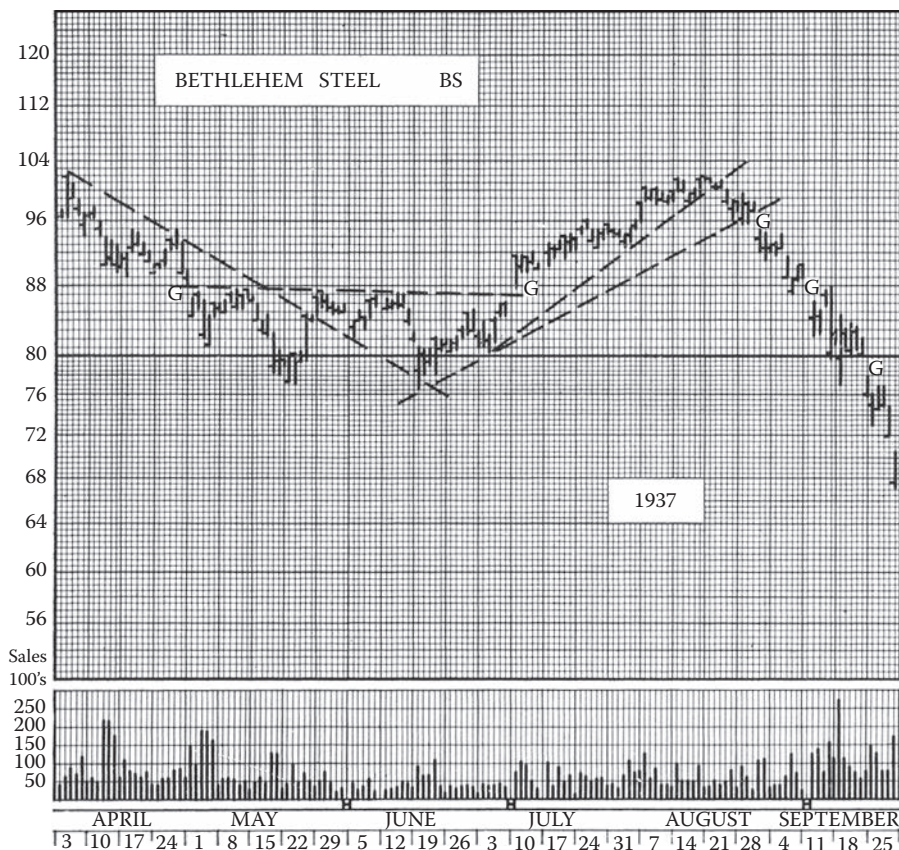


Figure 12.2 The large up-gap made on July 5 in this chart was a typical Breakaway Gap, occurring as prices broke out of the complex base for the July–August Secondary Recovery. (Compare this chart with [Figure 7.14](#).) Another type of Breakaway Gap—through a trendline—occurred on August 26. That of September 7 was primarily due to the “ex-dividend,” whereas that of September 18 was still another type of breakaway—through a Support Level. The first gap marked, on April 26, must be classified as a Runaway; it made a sort of an “Island” of the whole April–June complex base.

Another point: there are thousands of price gaps made in trading—some of them quite wide—that do not appear at all on the standard daily range charts because they are made *during* a single day and not between one day’s closing and the next day’s opening. Such intraday gaps are ordinarily overlooked entirely; the gap theorists are oblivious of them, although their significance is often greater than that of many *interday* gaps. Practically every emphatic breakout move from a strictly defined Rectangle or Right-Angle Triangle is attended by a gap, but only those few show up on the charts that occur at the day’s opening gong.

If we seem to have “protested too much” in the foregoing, it is only because we want our readers to study this topic with an open mind, free from preconceived notions as to any mystic qualities that gaps may possess. Turning to the other side of the picture, some gaps have technical import. Some gaps are useful to the chart analyst in appraising trend possibilities. Let us see what we can make of them.



Figure 12.3 A potent Breakaway Gap that showed on Zenith's weekly chart when it broke out of a Head-and-Shoulders Bottom in early 1942. Note high volume developed beyond the gap, suggesting it would not be quickly closed. The April reaction stopped short of it. In fact, this gap still had not been closed in 1956, more than 14 years later.

Ex-dividend gaps

First, however, we must eliminate from consideration the gaps that do *not* mean anything. An eighth-point gap obviously has no technical significance as it represents only the minimum permitted change in price. By the same token, a gap of a quarter of a point or even a half point in a high-priced stock, such as Norfolk & Western (before the split), represents only a normal, in fact tight, spread between successive bids. In brief, to carry interest for the chart technician, a gap must be wider than the usual changes in price that occur under normal or prevailing trading conditions. A second class of gaps that have no forecasting implications are those formed consistently and habitually by "thin" issues in



Figure 12.4 As a matter of interest, this monthly chart of Zenith Radio is reproduced for comparison with [Figure 12.3](#). The Head-and-Shoulders Bottom is easily seen.

the medium- and high-price brackets. You can spot them easily; if your chart of a certain issue shows numerous gaps as a regular thing, then no one of them is apt to mean anything special.

Finally, gaps that appear on the charts when a stock goes ex-dividend (whether the dividend be in cash, stock, rights, or warrants) possess no trend implications. They are occasioned not by a change in the Supply–Demand relation that governs the trend, but rather by a sudden and irreversible alteration in the actual book value of the issue.

Also of interest in this chart is the Descending Triangle, which started to form in March, but it was never completed—a deceptive and discouraging picture until the April 7 gap was made.

The Flag of mid-April “measured” the move from $9\frac{1}{2}$ to 14. The gaps measured the two halves of it, on either side of the Flag.

Eliminating the technically meaningless types named above, we are left with the gaps that occur infrequently (and that are not occasioned by an ex-dividend change in value) in issues that are so closely and actively traded as ordinarily to produce “solid” charts. A 1-point gap, for example, in the chart of New York Central would be an unusual event; it would demand attention and presumably have some forecasting significance.

Such gaps, for the purposes of our study, may be divided into four classes: Common or Area Gaps, Breakout Gaps, Continuation or Runaway Gaps, and Exhaustion Gaps.

The common or area gap

This type of gap gets its name from its tendency to occur within a trading area or Price Congestion Pattern. All of the Congestion Formations we have studied in the preceding chapters—both Reversal and Consolidation types—are attended by a diminution in trading turnover. The more strictly defined sorts—the Triangles and Rectangles—show

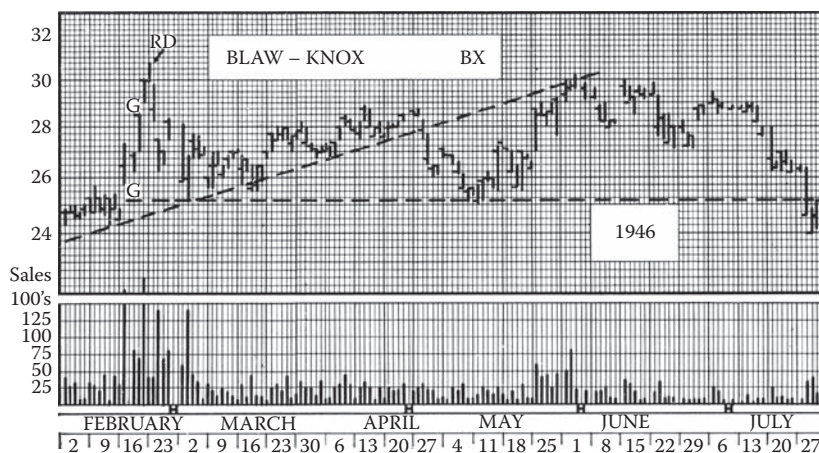


Figure 12.5 The early 1946 daily chart of Blaw-Knox contained a number of interesting technical features. Its spurt from 19 to 25 in December 1945 was followed by a nine-week Rectangle Consolidation, the end of which appears in the chart above. Prices erupted from this Rectangle on February 11 with a typical Breakaway Gap. Four days later, another gap appeared on even greater volume, and prices closed at the top of the day's range. This looked like a Runaway Gap, in which case continuation to 32 was implied according to the "rule" stated above. (Note the Rectangle "measurement" called for only 31.) On the following day, however, a One-Day Reversal, from 31 back to 30, appeared and the next session closed the February 15 gap, which now had to be relabeled, tentatively, as an Exhaustion Gap. Prices subsequently dropped back to the support of the nine-week Rectangle, rallied grudgingly along an established Intermediate Up Trendline, and broke that on April 24 to return again to the 25 support. In May, another advance took "BK" up once more to 30, where it bumped against the previously broken trendline. That was its last effort; in late July, the "valley" level at 25 was penetrated and a Major Double Top had been completed. To return to the February 15 gap, this is fairly typical of many cases in which it is impossible to say whether Continuation or Exhaustion is being signaled until two or three days after the day the gap is made.

this characteristic most conspicuously. Moreover, activity in these patterns tends to be concentrated pretty much at or near the top and bottom edges, their Supply and Demand Lines, while the area in between is a sort of "no-man's land." It is easy to see, therefore, why gaps develop frequently within such areas. You will find numbers of good examples of Pattern Gaps in the charts illustrated in [Chapters 8 and 9](#).

Such Pattern Gaps are usually closed within a few days, and for obvious reasons, before the Congestion Formation in which they have appeared is completed and prices break away from it, but not always. Sometimes a gap will develop in the *last* traverse of prices across the pattern area just before a breakout, and in such cases, it is not closed for a long time, nor is there any reason why it should be.

The forecasting significance of Common or Pattern Gaps is practically nil. They have some use to the technician simply because they help him recognize an Area Pattern—that is, their appearance implies a Congestion Formation is in the process of construction. If, for example, a stock moves up from 10 to 20, drops back to 17, and then returns to 20, making a gap in the course of that rally, it is a fair assumption that further pattern development will take place between approximately 17 and 20. This is a convenient thing to know and may, on occasion, be turned to profit in short-term trading policy.

Pattern Gaps are more apt to develop in Consolidation than in Reversal Formations. Thus, the appearance of many gaps within an evolving Rectangle or Symmetrical Triangle

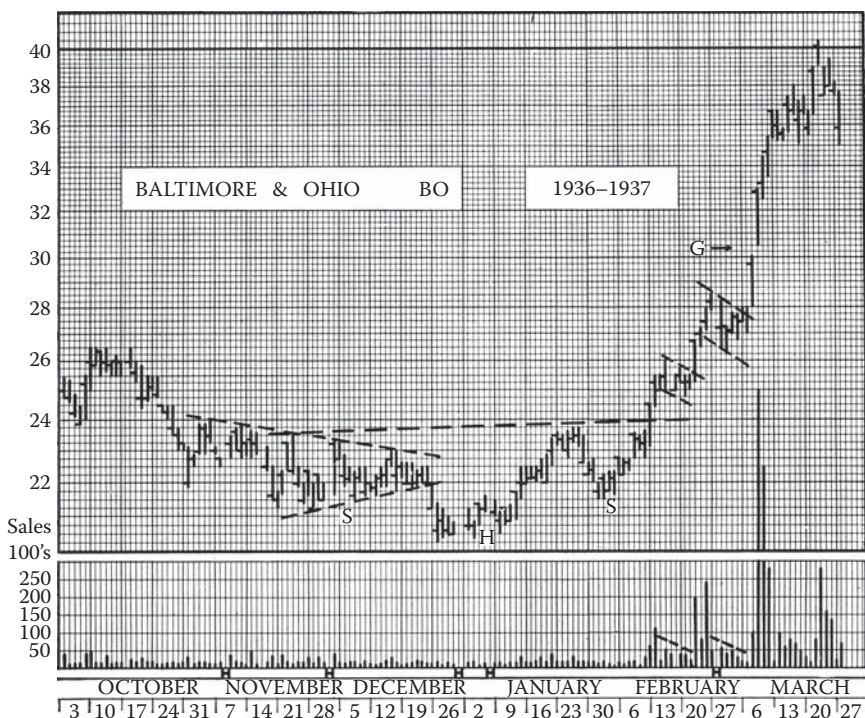


Figure 12.6 This is a good example of a Runaway Gap that performed according to rule. After reacting from 26 1/4 in late 1936, "BO" formed a Head-and-Shoulders Bottom (the left shoulder was a Triangle) and broke out of it on February 6, 1937. A small Flag formed immediately thereafter, calling for 28. At that level, another Flag developed which signaled 30 1/4 or better. As prices reached this latter goal, however, a gap was made, on March 3, on extraordinary volume. The next two days confirmed this to be a Runaway or Continuation Gap. As such, it implied further advance (measuring from the Head-and-Shoulders neckline) to 37 plus. "BO" made its Bull Market high at 40 1/4 on March 17. The measuring-gap rule should be used for purposes of "getting out" rather than "getting in." It does not guarantee a move will continue to the implied limit, but it does give assurance the move is near an end when the rule has been fulfilled.

reinforces the normal expectation that the pattern in question will turn out to be a Consolidation rather than a Reversal Area.

Breakaway gaps

The Breakaway type of gap also appears in connection with a Price Congestion Formation, but it develops at the *completion* of the formation in the breakaway move. Any breakout through a *horizontal* pattern boundary, such as the Top of an Ascending Triangle, is likely to be attended by a gap. In fact, it is safe to say that most of them are. And, if we consider what goes on in the market to create a Flat-Topped Price Formation, it is easy to see why Breakaway Gaps should be expected. An Ascending Triangle, for example, is produced by persistent demand for a stock meeting a large supply of it for sale at a fixed price. Suppose that supply is being distributed at 40. Other holders of the stock, who may have intended originally to liquidate at 40.5 or 41, see quotations come up to 40 time after time, stop there, and turn back. They tend, in consequence, either to join the crowd selling at 40,

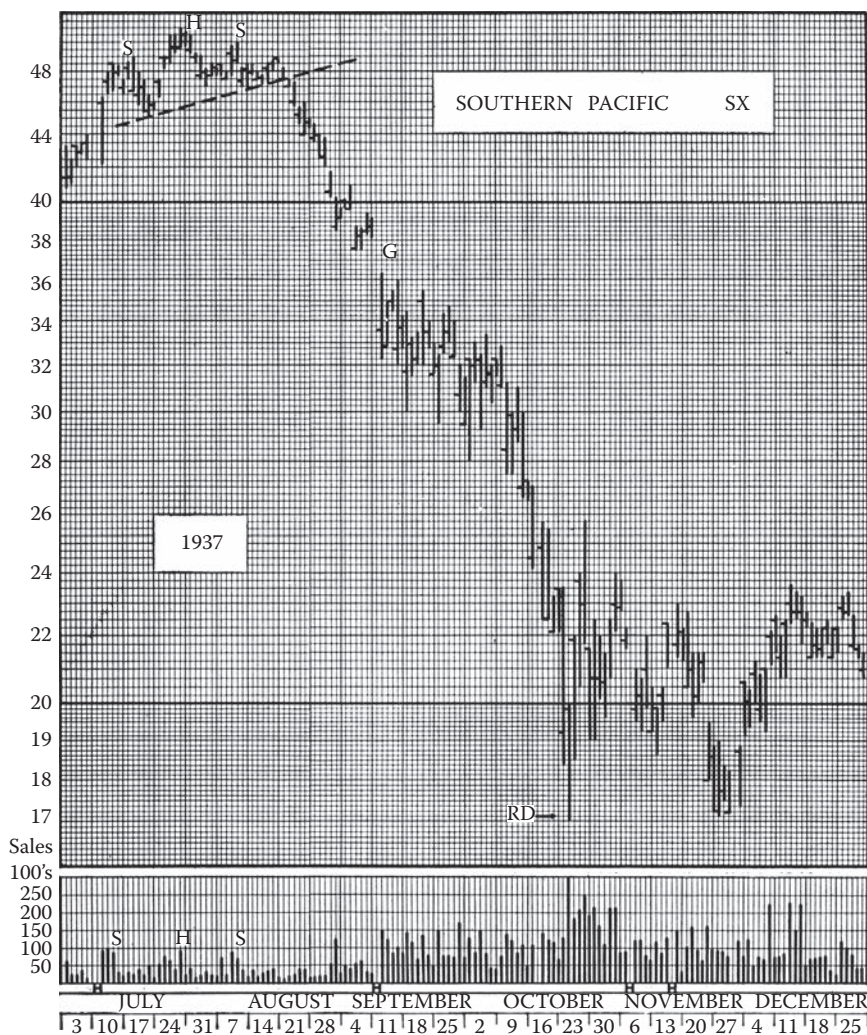


Figure 12.7 Panic Declines often produce large Runaway Gaps. The September 7 gap in this chart, judged by its size, volume, subsequent action, and the fact that it was made in “new low ground,” marked it as being of the measuring type. The implied goal was 26 or below. All other gaps in this chart were obviously of the “common” variety.

or else to figure that once through 40, prices will go much higher; they may either lower or raise their selling price. The result is a “vacuum” on the books, a dearth of offerings in the price range immediately above the pattern. Hence, when the supply at 40 in our Ascending Triangle example is finally all absorbed, the next buyer of the stock finds none offered at 40.125 or 40.25 and he has to bid up a point or more to get his shares, thus creating a Breakaway Gap.

As we remarked earlier in this chapter, gaps of this type actually occur on almost every decisive breakout from a Horizontal Congestion, although many of them do not show on the charts because they occur *during* a day and not between one day’s close and the following day’s opening. Breakaway Gaps also develop at times when prices move out of other types of Reversal or Consolidation Formations; they are not uncommon in connection

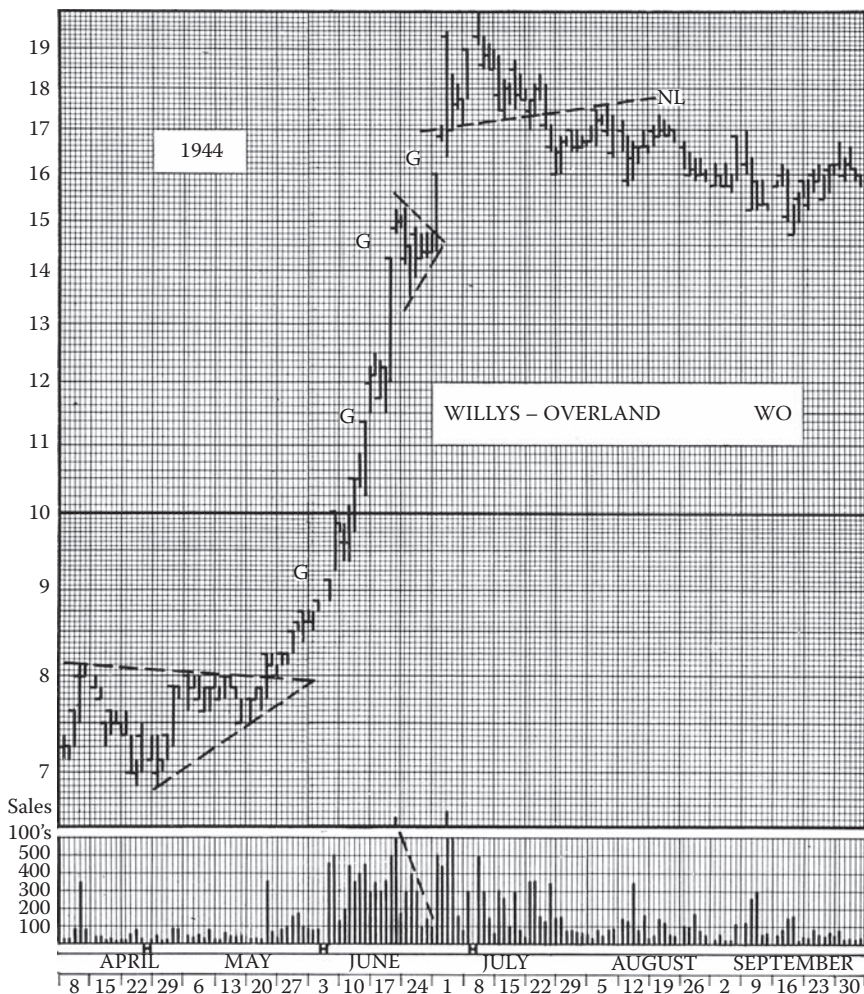


Figure 12.8 The “skyrocket” run-up of Willys–Overland in June 1944 was marked by a number of small gaps. The first two were too small to have much technical significance. The larger gap made June 16 was marked by the “stickiness” of prices on that day as Exhaustion. A small Flag Consolidation ensued. The June 27 gap also acted like an Exhaustion Gap insofar as price action was concerned, but volume had declined instead of climbing to a new peak. On June 28, prices jumped away again, so the June 27 gap was marked as another Runaway with an implied objective of 18 1/4 plus, which had already been reached. Note the Head-and-Shoulders Reversal that formed and the subsequent Intermediate Reaction.

with Head-and-Shoulders Patterns, for instance, and they even occur on the penetration of trendlines, which we shall discuss in a subsequent chapter.

What forecasting value can we ascribe to them? First, they serve to call attention to, and emphasize the fact of, a breakout. There can be little doubt that a genuine breakout has eventuated when prices jump out of a pattern with a conspicuous gap. False moves are seldom attended by gaps. Second, they carry the suggestion that the buying demand (or selling pressure, as the case may be) that produced the gap is *stronger* than would be indicated by a gapless breakout. Hence, it may be inferred the ensuing move will carry



Figure 12.9 “SMC” is a thin stock whose daily chart is usually “full of holes,” but this large gap that appeared on its weekly chart in September 1946 evidently possessed technical significance. Treated as a Runaway measuring from the eight-week Congestion at 68, it called for a downside objective of 44 or below, which was duly fulfilled.

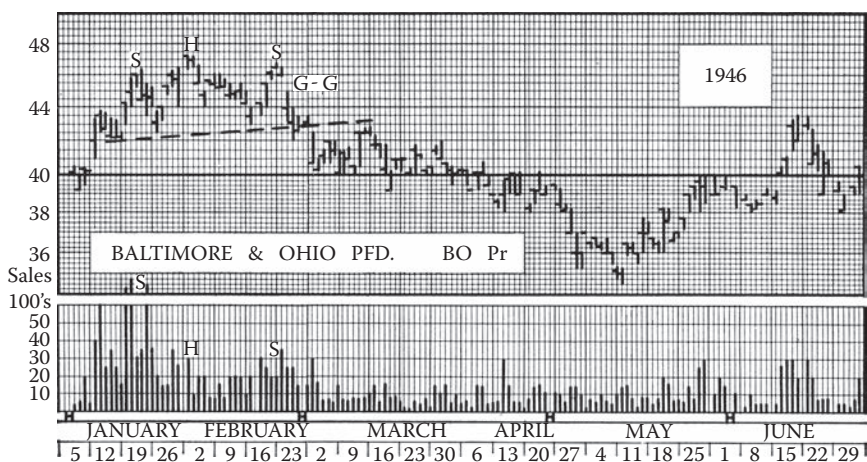


Figure 12.10 A small Island in the right shoulder of the Head-and-Shoulders Top that marked this issue’s Major Reversal. The Island served only to emphasize the chart’s Bearish implications.



Figure 12.11 Island “shakeouts” are not uncommon in “thin” stocks. Why they should develop as they do is hard to explain, but their forecasting implications are obvious.

prices farther or faster, or both. It does not do to make too much of this point; it is a logical inference and one that has been borne out in the majority of cases, but it has its exceptions and may prove most disappointing on occasion. Nevertheless, *other things being equal*, of two stocks that emerged from Ascending Triangles at the same time, we should choose to buy the one that gapped out over the one that pushed its way out by small fractional steps.

Except for the presumption of somewhat greater “steam” behind the move, the Breakaway Gap carries no particular measuring implication, nor any other forecasting significance. The next question is this: should we expect a Breakaway Gap to be closed within a relatively short time? Or, to put the question in more practical and pragmatic terms: should we defer buying in the expectation that it will be closed before any worthwhile move develops?

To give a fair answer to that question, it is necessary to scrutinize the volume of transactions before *and after* the gap. If a great many sales were recorded at the takeoff level from which prices jumped the gap, but relatively few as prices moved away from the far side of the gap, then there is a chance—perhaps about 50–50—that the next Minor Reaction will carry prices back to the edge of the pattern of origin, thus filling the gap. On the other hand, if high volume developed at the *far* side of the gap, and a great many transactions took place there as prices moved on away from the gap, then the chances are remote that any near-term Throwback will close the gap. In such cases, a Throwback reaction is almost always stopped at the *outside* of the gap.

(One is constantly tempted in a work of this sort to employ the words *always* or *never* without qualification. Unfortunately, the authors have *never* been able to discover a rule of techniques to which the market did not, on rare occasion, produce an exception. It is *always* necessary to be on guard against such exceptional developments. Many of them are caused by general market conditions that counteract the technical trend in individual issues. Keep an eye on the charts of the “Averages,” as well as the particular issues in which you are interested.)

Where Breakaway Gaps develop intraday, the daily chart cannot, of course, indicate how the day’s volume was distributed. In that event, it may be necessary to examine the



Figure 12.12 This Island Reversal Pattern at Bethlehem Steel's Major Top in 1937 is a "classic," yet it was followed by a curious and disturbing abnormality in the strong rally that developed on March 30. Those who sold out on the Island's signal around 95 on March 19 or 20 were startled, and, if they had also sold short, justifiably alarmed when prices jumped up a week later, not only through the second gap level but well above it. But eventually, as can be seen, everything worked out according to the original forecast. This incident will illustrate a general principle: when a clear-cut technical pattern of unquestionable significance has been completed on your charts, do not let some apparently contrary development that occurs shortly thereafter lead you to forget or neglect the previous plain signal. Give such situations time to work out. [Figure 12.2](#) shows the sequel to the above chart and, incidentally, another Island. Compare the volume.

ticker tape or ask your broker to refer to the published record of individual transactions to which most brokerage firms subscribe. (EN: This data may now be easily obtained. See Appendix D, Resources. EN9: Candlestick charts, now much in use, will allow the analyst to see the intraday breakaway gap.) Lacking any clear-cut volume clue, it is safest to figure that a Breakaway Gap will not be filled until long after the full move implied by the pattern of origin (usually a move of Intermediate Extent in the Dow sense) has been carried out.

Continuation or runaway gaps and the measuring rule

Less frequent in their appearance than either of the two forms we have discussed above, gaps of the Continuation or Runaway type are of far greater technical significance because

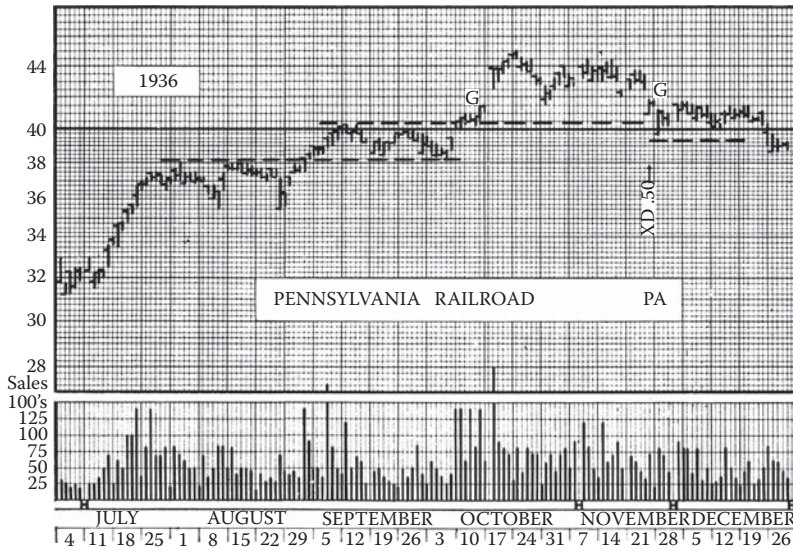


Figure 12.13 This looked like an Island in “PA,” but the second gap was actually attributable to a \$0.50 dividend which went ex on November 20 and, therefore, had to be discounted technically. Due to this dividend, it was necessary to lower the Support Line at 40 (see [Chapter 13](#)) by half a point. That Support, therefore, was not violated in December and prices subsequently advanced to above 50 the following March.



Figure 12.14 TLT shown here in computer notation produces gaps in profusion. As the reader can see, if one just traded in the direction of the gap many short-term scalps would be garnered. This chart also lends perspective to the hand drawn charts. A gap is a gap is a gap.

they afford a rough indication of the probable extent of the move in which they occur. For that reason they have sometimes been called “Measuring” Gaps.

Both the Common or Pattern Gap and the Breakout Gap develop in association with Price Formations of the Area or Congestion type, the former within the formation and the latter as prices move out of it. The Runaway Gap, on the other hand, as well as the Exhaustion Gap, which we will take up later, is not associated with Area Patterns, but occurs in the course of rapid, straight-line advances or declines.

When a dynamic move starts from an area of accumulation, the upward trend of prices will seem often to gather “steam,” to accelerate for a few days, perhaps a week or more, and then begin to lose momentum as supply increases when the very extent of the advance invites more and more profit-taking. Trading volume jumps to a peak on the initial breakout, tapers off somewhat in the middle of the advance, and then leaps up again to a terrific turnover as the move is finally halted. In such moves—and in rapid declines of corresponding character—a wide gap is quite likely to appear at the time when the Runaway is at its height, when quotations are moving most rapidly and easily with relation to the volume of transactions. That period comes normally at just about the halfway point between the breakout that inaugurated the move and the Reversal Day or Congestion Pattern that calls an end to it. Hence, a Continuation or Runaway Gap affords an approximate measurement of the move in which it develops. Its inference is that *prices will go as much farther beyond the gap as they already have gone between* the beginning of the move and the gap, as measured directly (and vertically) on the chart.

Since there is a tendency for advances to run, in terms of points, beyond the price levels arithmetically implied by this rule, and for declines to be more strictly limited, the gap-measuring rule works out particularly well when applied directly on semilogarithmic scale charts. On arithmetic charts, look for a trifle more on the upside and a trifle less on the downside. (In any event, you will be wise to “bank” on something short of the theoretical goal.)

Runaway Gaps are easy to find and identify in retrospect, but our task is to recognize them as such at the time they appear; there is no danger of confusing them with Pattern or Breakout Gaps. With those aside, any gap that shows up in a fast advance or decline *after* prices have moved well away from an Area Formation (or the penetration of an important trendline or break through a potent Support or Resistance Level, which we shall discuss later) may be a Runaway Gap. What then becomes necessary is to distinguish it from our next type, the *Exhaustion Gap*. Usually, the price and volume action on the day following the gap furnishes the evidence required for a safe diagnosis.

Two or more runaway gaps

It will be much easier to bring out the characteristics distinguishing Runaway and Exhaustion Gaps when we take up the latter in detail. Before doing so, we must mention those cases in which two and, rarely, even three gaps intervene in a fast move and are evidently all classifiable as of the Continuation or Runaway breed. It does not happen often and is particularly unlikely to appear in the chart of a fairly large and active issue, but one of the thinner stocks in the midst of a “skyrocket” move may go skipping along for three or four days, making gaps between each successive pair. The only question of practical importance that arises in such cases is this: where should the halfway measuring point be located? No quick and easy rule can be laid down, but studious inspection of the chart, especially of the volume trend, will usually afford an answer. Remember that halfway in these fast moves tends to come at the stage at which prices are moving most easily and

rapidly with respect to the number of transactions recorded (hence the tendency to gap). If there are *two* gaps, the halfway stage may very likely have been reached somewhere between them. Inspect your chart carefully and try to “average” the picture mentally; look for what appears to be the center of “thinness” and use that for your measuring level. But remember also that each successive gap brings the move inevitably nearer to Exhaustion, so let your judgment lean to the conservative side; do not expect too much of the second or third gap.

Exhaustion gaps

The Breakout Gap signals the start of a move; the Runaway Gap marks its rapid continuation at or near its halfway point, and the Exhaustion Gap comes at the end. The first two of these are easily distinguished as to type by their location with respect to the preceding price pattern, but the last is not always immediately distinguishable from the second.

Exhaustion Gaps, like Runaway Gaps, are associated with rapid, extensive advances or declines. We have described the Runaway type as the sort that occurs in the midst of a move that accelerates to high velocity and then slows down again and finally stops as increasing Resistance overcomes its momentum. Sometimes, however, “skyrocket” trends evidence no such gradual increase of Resistance as they proceed, showing no tendency to lose momentum, but rather continue to speed up until, suddenly, they hit a stone wall of supply (or, in cases of a decline, demand) and are brought to an abrupt end by a day of terrific trading volume. In such moves, a wide gap may appear at the very end, that is, between the next to the last and the last day of the move. This gets the name of Exhaustion Gap because the trend seems thereby to have exhausted itself in one final leaping spurt.

The best test of whether a gap formed in a rapid, straight-line advance or decline is of the Continuation or Exhaustion type comes on the day after the gap (more precisely, the day that makes the gap), although there are frequently other clues in the preceding chart picture. If trading activity mounts to an extraordinary height during the session following the gap, and particularly if the previous trend in prices does not appear to be carried along at a pace commensurate with that day’s activity, the gap is probably of the Exhaustion class. This interpretation is reinforced, in fact, made a virtual certainty, if the day after, the gap develops into a Reversal Day (as described in [Chapter 10](#)) with the closing price registered back near the edge of the gap.

Evidence that may be derived from the chart anteceding the gap may be enumerated as follows: If the trend has already carried out the full implications of the price formation or Congestion Area from which it emerged, Exhaustion is more likely than Continuation. By the same token, if the reasonable measuring implications of the pattern of origin are still far short of attainment, the gap is probably of the Continuation type. An Exhaustion Gap is seldom the first gap in a runaway move; it is usually preceded by at least one Continuation Gap. Thus, you may ordinarily assume (unless the contrary appears from other and weightier indications) the first gap in a rapid advance or decline is a Continuation Gap, but each succeeding gap must be regarded with more and more suspicion, especially if it is wider than its predecessor.

We have referred to Exhaustion Gaps as *wide* gaps. Width is, of necessity, relative in this study; it is impossible to lay down any exact rules to define wide or narrow. Do not let this bother you too much. Recognition of what constitutes an unusually wide gap for the particular stock you have under observation soon comes with a little charting experience.

Runaway Gaps are usually not covered for a considerable length of time, as a rule, not until the market stages a swing of Major or full Intermediate proportions in the opposite

direction. But Exhaustion Gaps are quickly closed, most often within two to five days, a fact that furnishes a final clue to distinguish Exhaustion from Continuation, if it should still be needed at that stage. This, incidentally, upsets the common superstition that all gaps must be closed before the trend can be trusted to continue very far. In the case of the Runaway Gap, it is not closed, but the trend moves right along, nevertheless, and often for a surprising distance. In the case of the Exhaustion Gap, the closing of it actually contributes to the signal the trend has run out.

An Exhaustion Gap, taken by itself, should not be read as a sign of Reversal, or even, necessarily, of Reversal at all. It calls “stop,” but the halt is ordinarily followed by some sort of area pattern development that may, in turn, lead to either Reversal or Continuation of the move before the gap. In practically every case, however, enough of a Minor Reaction or delay ensues from the formation of an Exhaustion Gap before a new trend is established to warrant closing out commitments at once. (One can always reenter if it subsequently appears that the previous trend is to be resumed.)

The Island Reversal

We mentioned (at the end of [Chapter 10](#)) a Reversal Pattern, the Island, which was to be taken up under the general study of gaps. The Island Pattern is not common and it is not, in itself, of major significance in the sense of denoting a long-term Top or Bottom, but it does, as a rule, send prices back for a complete retracement of the Minor Move that preceded it.

An Island Reversal might be described as a compact trading range separated from the move that led to it (and that was usually fast) by an Exhaustion Gap and from the move in the opposite direction that follows it (and that is also equally fast, as a rule) by a Breakaway Gap. The trading range may consist of only a single day, in which event it normally develops as a One-Day Reversal, or it may be made up of from several days to a week or so of Minor Fluctuations within a compact price zone. It is characterized, as might be expected, by relatively high volume. The gaps at either end occur at approximately the same level (they should overlap to some extent) so that the whole area stands out as an Island on the chart, isolated by the gaps from the rest of the price path.

We have said an Island does not, of itself, appear as a *Major* Reversal Formation, but Islands frequently develop within the larger patterns at turning points of Primary or important Intermediate consequence, as, for example, in the head of a dynamic Head-and-Shoulders Top. By the same token, they appear occasionally at the extremes of the Minor Swings that compose a Triangle or a Rectangle (in which event, the gaps that set them off are really better classified as Common or Pattern Gaps).

The reasons why Islands can and do develop—in other words, why gaps can and do repeat at the same price level—will be more apparent when we take up the general subject of Support and Resistance in a later chapter. Suffice it to repeat at this point that prices can move most rapidly and easily, either up or down, through a range where little or no stock changed hands in the past, where, in other words, previous owners have no “vested interest.”

Sometimes the second gap—the Breakaway that completes the Island—is closed a few days later by a quick Pullback or reaction. More often it is not. Rarely, the first gap—the Exhaustion Gap that starts the Island—is covered in a few days before the second gap appears, in which event the Island Congestion takes on a sort of V-Shape (if it is a Top), and there is no clear “open water” across the chart horizontally between the Island and the trends preceding and following it. Yet, in any of these variations, the interpretation remains the same: the preceding Minor Move should be practically retraced.

An Island Pattern is not easy to trade on unless it be for a short-term “scalp,” as, obviously, a good share of the retracement already may have been accomplished by the time the Island is charted and an order to buy or sell on its indications can be executed. If the entering gap is recognized as an Exhaustion Gap, the trader who is interested in the stock presumably will take action before the second gap forms and before the Island is in evidence. Perhaps the greatest utility that Islands have for the chart analyst is that of calling attention to a situation of putting him on the alert as to its potentialities.

Gaps in the Averages

Gaps appear also in nearly all Averages but, for obvious reasons, with rather less frequency than in the charts of individual issues. Although it is not necessary for all of the stocks composing an average to make a gap simultaneously to produce a gap in the Average figures, a majority of them must. As might therefore be expected, Common or Pattern Gaps are particularly rare in Average charts, but Breakaway and Runaway types are not uncommon, although they are small as compared with the size of such gaps in single stocks. Exhaustion Gaps, and, in consequence, Islands, again are rare. The conditions that create an Exhaustion Gap seldom develop in a sufficient number of individual issues at any one time to produce a counterpart in the Averages.

The technical interpretation of gaps in Averages is, in the main, the same as in single stocks. The authors have not found that an Average gap possesses any peculiar potency or significance over and above that attributable to a gap in the chart of any actively and closely traded single issue.

The broader, and hence, most representative market indexes show the fewest and smallest gaps. *EN: On the other hand, the NASDAQ is quite volatile and a good gap producer.*

It is suggested the reader review this chapter after he has finished studying the principles of Support and Resistance in [Chapter 13](#). (*EN9: The truth is there is nothing more that need be said about gaps, and the truth also is that no modern examples need be added. But gaps are fun, so see [Figure 11.11](#) and [Chapter 16](#) for modern examples.*)



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Support and Resistance

As illustrated by [Figures 13.1](#) through [13.12](#), the phenomena we shall study in this chapter are markedly different in kind from those discussed in preceding sections. We shall look at the stock market from a new angle and, in so doing, may find it possible to develop some very practical additional rules to guide us in selecting stocks for purchase or sale, in estimating their potential moves, and in foreseeing where they are likely to “run into trouble.” As a matter of fact, some experienced traders have built their “systems” almost entirely on the principles of what we call Support and Resistance, paying no attention to the specific pictorial patterns of price and volume action we have been investigating in preceding pages.

Support and Resistance phenomena are not, by any means, unrelated to the various patterns and formations previously studied. We have already had occasion to hint at a basic principle of Support and Resistance in our explanation of gaps, and, as you read on, you will find a number of the other patterns of price behavior are explained thereby, or at least become more readily understood.

The term *Support* is commonly used in the Street. In one or more of its connotations, it must be fairly familiar to the reader. For example, we may hear such-and-such a crowd is supporting XYZ at 50 or is prepared to support the market by buying all stock offered on any 5-point concession. For the purposes of this chapter, we may define *Support* as buying, actual or potential, sufficient in volume to halt a downtrend in prices for an appreciable period. *Resistance* is the antithesis of Support; it is selling, actual or potential, sufficient in volume to satisfy all bids and, hence, stop prices from going higher for a time. Support and Resistance, as thus defined, are nearly but not quite synonymous with demand and supply, respectively.

A *Support Level* is a price level at which sufficient demand for a stock appears to hold a downtrend temporarily at least, and possibly reverse it, that is, start prices moving up again. A *Resistance Zone*, by the same token, is a price level at which sufficient supply of a stock is forthcoming to stop, and possibly turn back, its uptrend. There is, theoretically, a certain amount of supply and a certain amount of demand at any given price level. (The relative amount of each will vary according to circumstances and determine the trend.) But a Support Range represents a *concentration* of demand, and a Resistance Range represents a *concentration* of supply.

According to the foregoing definitions, you can see the top boundary of a Horizontal Congestion Pattern such as a Rectangle is a Resistance Level, and its bottom edge is a Support Level; the top line of an Ascending Triangle is unmistakably a Resistance Level, and so on. But we are more interested now in the reasons why Support or Resistance, as the case may be, can be *anticipated* to appear at certain price ranges. Within reasonable limits, and with a certain few exceptions to be examined later, it is quite possible to do this. Expert chart readers are frequently able to make some amazingly accurate predictions as to where an advance will encounter Resistance (supply) or where a declining trend will meet Support.

The basis for such predictions—the elementary data from which Support and Resistance theories are derived—is that turnover in any given issue tends to be concentrated at the

several price levels at which a large number of shares changed hands in times past. Since any level at which a great volume of transactions takes place usually becomes a Reversal point (Major, Intermediate, or Minor) in that stock's trend, it follows naturally that Reversal Levels tend to "repeat." However, here is the interesting and the important fact that, curiously enough, many casual chart observers appear never to grasp: these critical price levels constantly switch their roles from Support to Resistance and from Resistance to Support. A former Top, once it has been surpassed, becomes a Bottom zone in a subsequent downtrend; and an old Bottom, once it has been penetrated, becomes a Top zone in a later advancing phase.

Normal trend development

Perhaps we can make this plainer by citing a typical example of normal trend development. Suppose a stock in a Bull Trend moves up from 12 to 24, and there runs into a large volume of selling. The result is a reaction that may take the form of a full Intermediate Correction to, say, 18, or a series of Minor Fluctuations forming a Consolidation Pattern between, say, 24 and 21, the effect being the same in either case. Following this Correction or Consolidation, a new advance gets under way and carries the price on up to 30 before running again into supply in sufficient concentration to stifle the move. Now another reaction is evidently due. Again, it may take the form of a sideways Consolidation Pattern or an Intermediate Correction. If the latter, where will that corrective setback be reversed, or in other words, will it meet Support? The answer is at 24, the level of the first Top in the trend. That is the level (below current quotations) where a large turnover had previously occurred. Then it functioned as Resistance, producing a halt or Reversal in the first upswing; now it functions as Support, stemming and reversing, at least in a Minor sense, the latest downswing.

Why should this be? It will be easier to suggest an answer to that question if we first go on with a similar example of typical action in a downtrend. This time, suppose our stock makes a Major Top and declines from, say, 70 to 50. There, at 50, a temporary Selling Climax occurs; there is a large turnover, prices rally, perhaps slip back for a "test" of 50, and then stage a good recovery to 60. At 60, buying peters out, the trend rounds over, turns down, and accelerates in renewed decline, which carries to a new low at 42. Again, a wave of buying comes in and a second recovery swing gets under way. We can confidently expect this recovery (from 42) will run into strong Resistance at 50. The price level that functioned as a *Support* for the first phase of decline, now that it has been broken through the downside by the second phase, will reverse its role and function as *Resistance* to the second recovery move. The former Bottom level will now become a Top level.

Here, we may ask again why this should be so, and now we can suggest an answer. In the example of downtrend action cited in the preceding paragraph, our stock first dropped to 50, ran into considerable volume there, reversed its trend, and rallied to 60 with activity dwindling on the rise. A lot of shares changed hands at 50, and for every seller there was a buyer. A few of those buyers may have been covering short positions and, having done so, had no further interest in the issue. Other short-term traders and professionals may have purchased simply because they sensed a temporary Bottom in the making and hoped to scalp a few points on the ensuing rally; presumably, they (or at least some of them) took their profits and were out before prices broke very far on the next decline. But a majority of those who acquired shares at 50, it is safe to say, did so because they thought the stock was cheap at that price, figuring it had gone low enough. Only a few months ago, it was selling above 70; surely, it was a bargain at 50 and could be picked up and put away "for the long term."

The explanation

Imagine yourself, for the moment, in the place of those new owners. They see prices turn up, reach 55, 58, 60; their judgment appears to have been vindicated. They hang on until the rally peters out and prices start to drift off again, slipping to 57, 55, 52, and finally 50. They are mildly concerned but still convinced the stock is a bargain at that price. Most likely, there is momentary hesitation in the decline at 50 and then prices break on down. Briefly, there is hope the break is only a shakeout to be recovered quickly, but that hope vanishes as the downtrend continues. Now our new owners begin to worry. Something has gone wrong. When the stock gets down below 45, the former bargain does not look so good. "Well, I guess I picked a lemon that time, but I won't take a loss in it. I'll just wait until it gets back up to 50 some day where I can get out even (except for expenses), and then they can have it." (Does this sound familiar, by any chance?)

We can skip over the next few swings that "followed the rules" and go on to the change in the picture, which came with the first notable violation of a Support Level in 1946. Prices had pushed up the first of February nearly to 54, well out above the Tops around 46, which formed the previous November. The late-February reaction should have "caught Support"

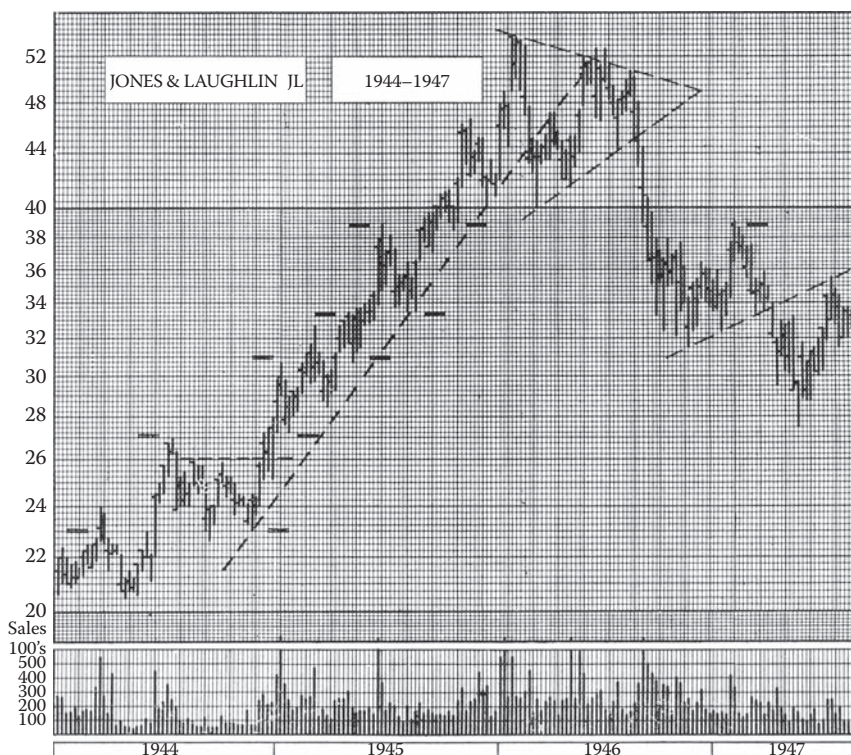


Figure 13.1 Why now was so much time spent and "work" done during mid-1945 under 33–34? We cannot see it on this chart, but the previous monthly history shows that the Bottoms of long Congestion Areas were made in this zone in late 1939 and late 1940. These old Bottoms, representing Support, originally, were able to produce some supply (Resistance) five years later. Once prices had worked through that supply, however, they were able to rise quickly to 44, and then their subsequent reaction found Support just where you might have expected—at 33–34. Support had turned to Resistance and then to Support again.

around 46—but it did not; it crashed on down to the “round figure” 40. This was an ominous (although not necessarily “fatal”) development. Thereafter, a massive Symmetrical Triangle was formed and broke downside in September.

The first Panic Decline in the Bear Market is no respecter of Support Levels. This one was no exception, although it is noteworthy that prices “bounced” several times from the important old 33–34 zone. By November, the Top Triangle’s measurement had been exactly fulfilled. (You should turn back to this record and study it again after you have read further in this chapter.)

Take the opposite side of the picture—the uptrend process. You, along with many others, bought XYZ at 12, carried it up to 24, decided that was plenty high for it, and cashed in. Thereupon XYZ reacted to 20, and you congratulate yourself on your astuteness. But then, unexpectedly, it turns around and rushes up to 30. Now you do not feel as smart knowing that was a better stock than you gave it credit for being. You wish you had it back, yet you will not pay more for it; if it comes back down to 24, the price at which you sold, you’ll “reinstate your position.”

Perhaps you have never been in either of these situations. Perhaps your own reactions would not, in such cases, have been the same as those we have indicated. If you have had a fair amount of experience in the market—have some knowledge of the psychology of the “average investor”—you know the pictures described are typical.

At this point, you may not be satisfied we have succeeded in giving an adequate explanation for our basic principle of Support and Resistance Levels. Remember, however, that the supply and demand balance in the market is nearly always a delicate thing. Only a moderate oversupply at any one price will suffice to stifle an advance; only a little extra demand concentrated at a certain level will stem a decline. Remember, other traders are watching the tape as well and will be quick to sense any change in the situation and be quick to join the parade whenever a change in trend appears to be developing. Consequently, orders to buy or sell a few hundred shares may induce the transfer of several thousand.

Another point worth bearing in mind is that the traders and investors who (because of the presumption their previous mistakes in either selling or buying prematurely) created Support and Resistance Levels are not necessarily ignorant or inexperienced. On the contrary, we must list them among the wiser and more alert of those who operate in the market. To make one more use of our previous theoretical example of typical downtrend action, those who bought at 50 were certainly smarter than those who bought at the top (70) or on the way down to 50, even though the latter price was broken later on. Giving them credit for somewhat superior judgment, it follows that they may be expected to appraise later developments pretty carefully and display something better than a wooden and stubborn determination to “get out even” when it comes to selling on a Recovery Move. Hence, in a marked Bear Trend “overhanging supply”; that is, stock bought at higher levels by holders now waiting for a good chance to unload, will begin to come on the market *below* the theoretical Resistance Level. Wise owners will be willing to sacrifice a point or so to avoid getting caught in a worse loss.

By the same token, “sold-out Bulls,” when a Major Uptrend is under way, may be willing to pay a point or two more to replace the shares they had previously cashed in too soon. Thus, it is characteristic of reactions in well-established (second phase) Bull Markets to drop back only to the very uppermost limits of a Support Range—and for recoveries in established Bear Markets to reach only the lowest edges of Resistance Zones, or perhaps even fail of that by an appreciable margin. We shall have more of this sort of thing to point out later on, but first we must take up two other matters—how to estimate the potential

importance of Support and Resistance Zones, and how to more accurately locate the centers of axes of such zones.

Estimating Support–Resistance potential

To go back to first principles, the Resistance that an upward move may meet at any given level depends on the quantity of stock overhanging there—the number of shares previously bought at that price by owners who now would like to get out without loss. Obviously then, *volume* is our first criterion in estimating the power of a Resistance Range. An old Minor Bottom level, at which only four or five hundred shares changed hands, cannot set up much Resistance to a subsequent advance, but a Selling Climax Bottom, where several thousand shares were bought, will provide a lot of potential supply after prices have dropped well below it, at some later date, and then attempt to rise up through it again.

A long Rectangle or a Descending Triangle has a number of Bottoms at the same level. We can get a crude approximation of the amount of Resistance there by summing up the volume of trading on all its Bottoms, but then some discount must be taken for the shares that may have been bought at the Bottom of the pattern in its early stages and then sold near the Top before it was completed. In brief, a single, sharp, high-volume Bottom offers somewhat more Resistance than a series of Bottoms with the same volume spread out in time and with intervening rallies.

Another criterion is the extent of the subsequent decline. Or, to put it another way, how far prices will have to climb before they encounter the old Bottom zone whose Resistance potential we are attempting to appraise. Generally speaking, the greater the distance, the greater the Resistance. Suppose PDQ sells off from 30 to 20, “churns” at that level for several days, rallies to 24, and then drifts back down to 19. Investors who picked it up at 20 will not be greatly concerned at that stage. If a rally now develops from 19, there will be little or no disappointed selling at 20. Should prices dip to 18 before the rally starts, there may be some supply forthcoming at 20, but still not a formidable quantity. From 17, Resistance will become evident. In brief, prices have to break far enough below the price at which a trader bought his stock to convince him that he made a bad investment and, hence, that he should sell when he gets a chance to do so without too great a loss.

It is impossible to formulate any precise rule or equation to define how far a decline must proceed to set up Resistance above it. However, do not look for much supply to come out of a Bottom level in the low-middle price ranges (20–35) unless the trend later takes quotations more than 10% under it. This 10% rule cannot be applied to very low-priced issues. A man may buy a stock at 5 and see it drop to 4 or 3.5 with considerable equanimity despite the fact he stands a loss of 30% at the latter figure. His “dollar” loss looks small, and he still thinks it will be easy for his stock to get back up to 6 or 7; so, he is willing to wait.

Another factor enters into and reinforces the “extent of decline” criterion. If our PDQ rallies, as before, from 20 to 24 and then drops rapidly to 12, not only will many of the old owners at 20 be thoroughly disgusted and glad to get out at that price, given an opportunity, but the new owners at 12 also will be pleased to take 20 (66 2/3% profit) and quick to do so if they detect any signs of trouble there. New buyers at 18, needless to say, would not be quite so ready to sell at 20.

A third criterion for appraising the Resistance potential at an old Bottom level is the length of time that has elapsed since it was formed and the nature of general market developments in the interim. You will, no doubt, find it reasonable to suppose that an Intermediate Bottom formed in the early stages of a Bear Market will offer relatively little Resistance after prices have fallen far below it, have taken perhaps the better part of a year

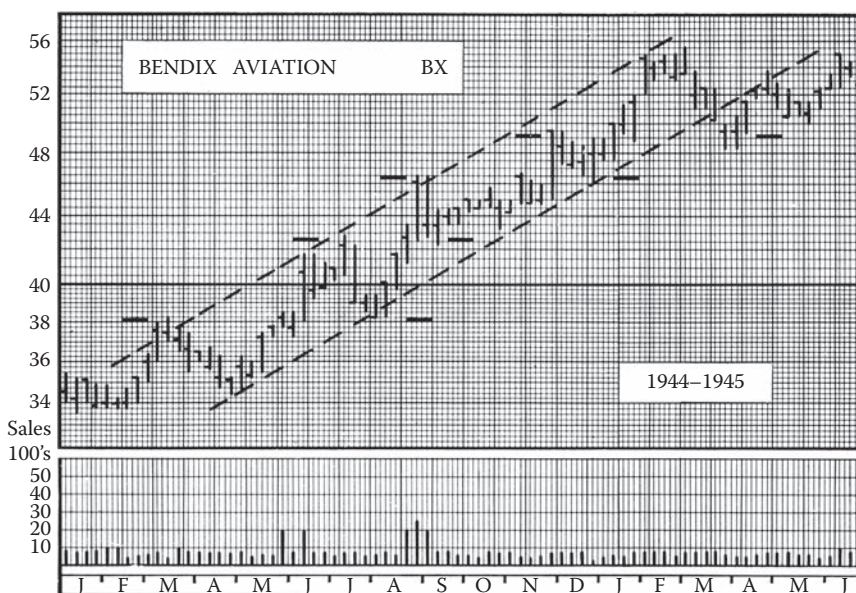


Figure 13.2 Support-Resistance Levels in a long Intermediate Uptrend. The reader will need no guidance in applying the principles stated in this chapter to the Bendix weekly chart reproduced above. Observe that when prices broke down in 1945 through a long trendline, their decline stopped, nevertheless, at the Support set up by the previous November's Top.

to make a Major base, and then have gradually climbed up to it again four or five years later. To some small extent, this is true. A supply only a year or two old is apt to be more effective than one that is four or five years old, but the latter does not lose all of its potency by any means. In fact, it is often surprising how effective the Resistance will be at a very old Bottom zone, provided it has not been "attacked" in the interim, and provided no changes have been made in the capitalization of the company that might obscure, in the mind of the owner, the original cost of his stock. Under the latter heading, we would put split-ups and large stock dividends, or even an unusually generous cash "melon." We do not mean to imply that an investor is ever actually deceived as to the actual cost of his shares, no matter how they may have been split, or what dividend distribution has been made, but his disappointment (and desire to get out even) may be abated.

If, however, a Resistance Zone has once been attacked—if prices have come back up to it, hit it, and then retreated—some of its power has obviously been removed. Some of its overhanging supply has been used up in repelling the first attack. The next advance, therefore, will have less stock to absorb at that level. Here again, the volume chart may be looked to for some approximation of the amount of Resistance consumed. In any event, it is an odds-on assumption that a third attack at a Resistance Level will succeed in penetrating it.

We have named three criteria—volume, distance away, and time elapsed—to be used in assessing the amount of Resistance to be expected at any given level. At this point, it must be apparent (and perhaps disappointing) to the reader that his own judgment must play a large role in applying them. This cannot be helped; it is impossible to set up an exact mathematical formula for any of them.

But, after all, the problem is not too complicated. The general principles are simple enough and, we believe, easy to understand. We can look back at the charted history and see where, in the last preceding downtrend, a Bottom formed that may produce more or

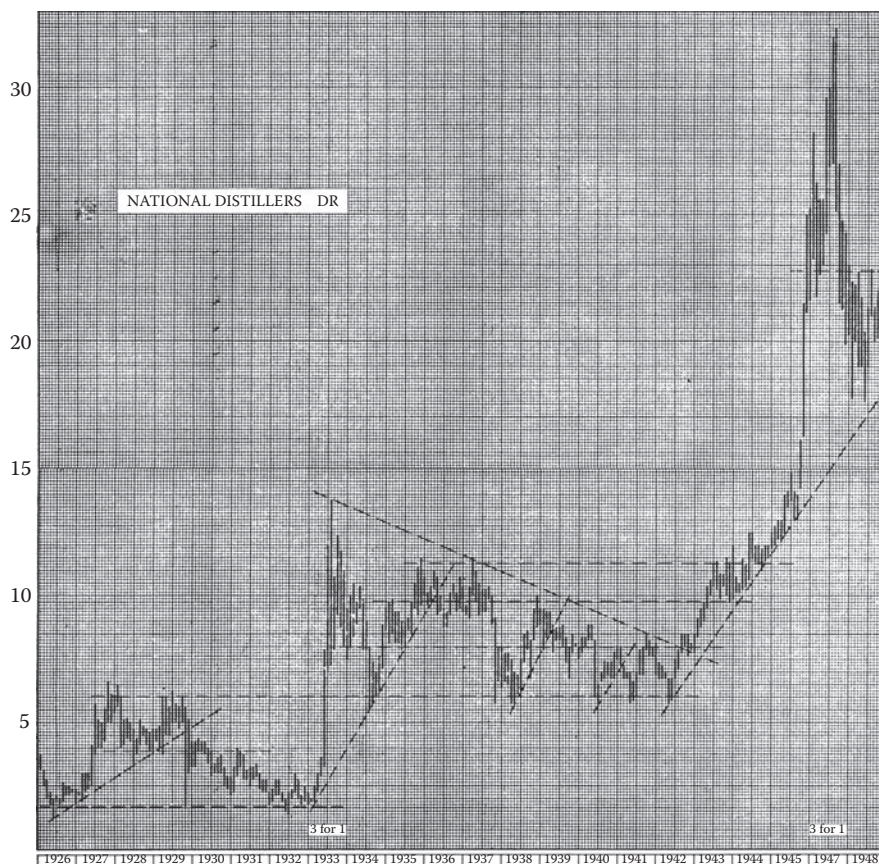


Figure 13.3 For Major Support–Resistance Level study, monthly charts are most useful. This one presents many points of interest. Observe how important levels are formed and how, once formed, they appear again, and reverse their roles. The price scale shows 1947 values with previous years adjusted for the splits of 1933 and 1946.

less Resistance when the current advance reaches back up to its range. We have to estimate how much supply resides there, how many shares were bought originally at that price and are still held by owners who may welcome a chance to get out even.

The greatest danger in applying judgment to the measuring of these factors lies in underestimating the amount of Resistance to be expected. Guard against that effort; it is safer always to overestimate it. You may be Bullishly disposed yourself; you may say, “Those fellows who were hung up there in this stock must realize that conditions have improved, and they will not be so anxious now to sell.” Don’t count on it. Recall, they have been “hung up” for a long time; even if they are mildly Bullish on the market in general, they may be so disappointed with this particular stock that they want to switch out of it and try something else. (The stubborn and often costly refusal of the average American investor to “take a loss” operates even against timely switching.)

Everything we have said in the foregoing paragraphs about estimating potential Resistance applies as well—but in a reverse direction, of course—to estimating potential Support. The principles are precisely the same, even though the underlying rationale may be less easy to grasp.

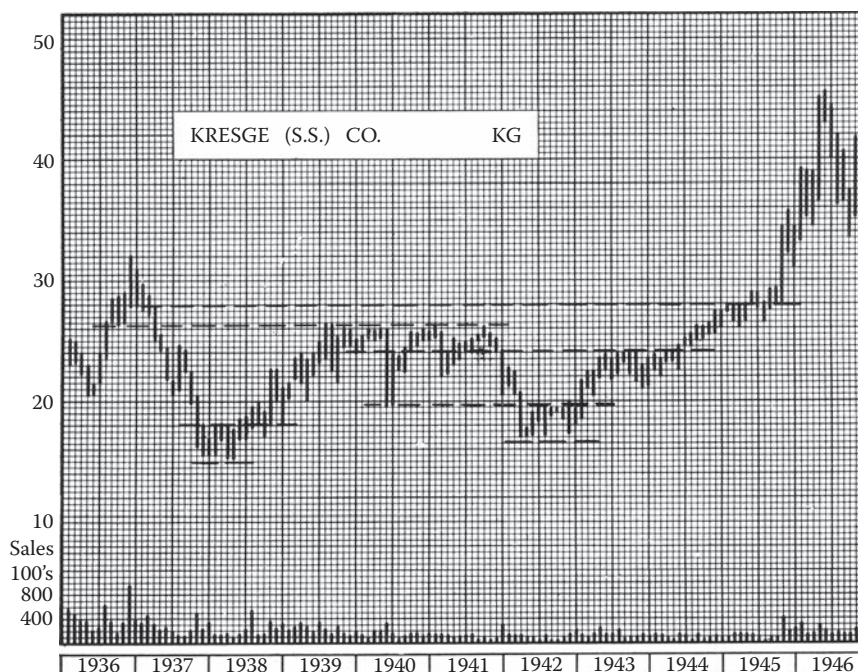


Figure 13.4 Particularly noteworthy in this monthly record is the Resistance met in 1939, 1940, 1941, and even in 1944, at the Bottom level (just above 26), the three-month Congestion of 1936. Also, the appearance eight years later (!) in 1945 of Resistance at the Bottom level (28) of the High-Volume Top Congestion of 1936–1937.

Prices were able to “skyrocket” when that Resistance was finally overcome. You will find that several additional Support–Resistance Lines might have been drawn on this chart. Note Major Bottom Formations of 1937–1938 and 1942.

Locating precise levels

Our next problem to consider is how, in practical day-to-day chart analysis, we can locate as exactly as possible the limits of a Support or Resistance Range and, in many cases, the specific price figure representing the core or axis of such a range. In the theoretical examples we have made up so far to illustrate basic principles, we have used even figures, but in actual trading, the levels are seldom so nicely marked. Even the sharp and relatively patternless Bottom of a Recession may consist of a week of price fluctuations within a narrow range. Perhaps the lowest day of that week’s Congestion will appear on the chart as a One-Day Reversal, or there will be two or three days that “spike” down below the general mass. Here again, although no mathematical rule can be laid down, it is easy to relate the price and volume patterns visually, and by simple inspection, arrive at a near estimate of the figure at which supply in quantity is likely to be forthcoming. Look particularly at the closing levels of the days making up the Bottom Congestion and average them mentally; this figure is apt to be pretty close to the “center of gravity” of the entire Resistance Area.

Some supply is likely to start coming in as soon as a subsequent advance reaches the bottommost fraction of the Resistance Zone, and more and more will appear as the move

pushes up into it. Sometimes, it is possible to predict “to a hair” just how far prices will penetrate a Resistance Range by carefully comparing the vigor (volume of trading) on the advance with the volume registered at various levels in the original formation of the Resistance. This takes experience, but it is experience that you will find quite easy and not at all costly to gain. In most cases, however, it is neither necessary nor particularly desirable to be so exacting.

Nearly every chart in this book shows some example of Support and Resistance phenomena, and the reader should make it a point when he has finished this chapter to go back over and study them all in detail. The practical application of the rules we have been discussing will be greatly clarified. Equally instructive, if you can manage to obtain such a collection, is a study of the Support and Resistance Levels appearing in the monthly charts of all actively traded stocks over a period of 10 years or more. *EN: Easily generated by most currently available software and on the internet at stockcharts.com and other sites.* You will undoubtedly be amazed to see how Tops, Bottoms, and Sideways Congestions tend to form at the same approximate levels in successive Major Swings, while prices move freely and rapidly, up or down, through the ranges between such levels. It is hardly necessary to dwell on the practical dollars-and-cents value of such information that may be derived from the chart history.

This brings up a matter that we may as well pause to consider here—the kind of charts most useful for locating and appraising Support and Resistance Levels. For near-term Minor Moves, the daily chart is naturally the only source of information, and a daily chart record that extends back for a year or more may, if necessary, be used in the location of levels of Intermediate Trend importance. The writers have found, however, that a daily chart does not give the perspective on the long range that one really needs to determine Major and Intermediate Support and Resistance Zones. It is apt to overemphasize the potential of a recently set up Minor Support (or Resistance) Zone and obscure the importance of a true Intermediate Level. For true perspective, a weekly chart, showing volume as well as price ranges, and covering at least the whole previous Major Bull and Bear cycle, is most desirable. Also, very good results can be obtained with a little study and experience from monthly charts.

To return to our study of Support phenomena, we have had several occasions to refer in previous chapters to a “normal” trend. What we have had in mind might perhaps be better called an “ideal” trend because, like so many other so-called normal things, it represents a pattern from which the facts of experience frequently deviate. In stock trends, nevertheless, this normal or ideal appears as a fairly common pattern. If it is an uptrend, it consists of a series of zigzags (*EN10: think waves, as in Chapter 28*), each “zig” carrying prices to a new high and each “zag” taking them back to the approximate top of the preceding “zig.” To illustrate with figures, up to 10, back to 6, up to 15, back to 10, up to 20, back to 15, up to 26, back to 20, and so on. Such a move is what technicians refer to as “self-correction” and regard as particularly sound and, hence, likely to be continued. You can see it really represents a reaction to the nearest Minor Support Level following each step forward. If you become interested in an issue with such a trend pattern, the normal return to a Support produces a good place to buy.

Significance of Support failure

Sooner or later, however, a normal Minor Wave Pattern is bound to be broken up. This generally occurs in one of two ways (although there is an infinity of possible variations). In one, prices spurt away in an advance out of all proportion to the previous succession

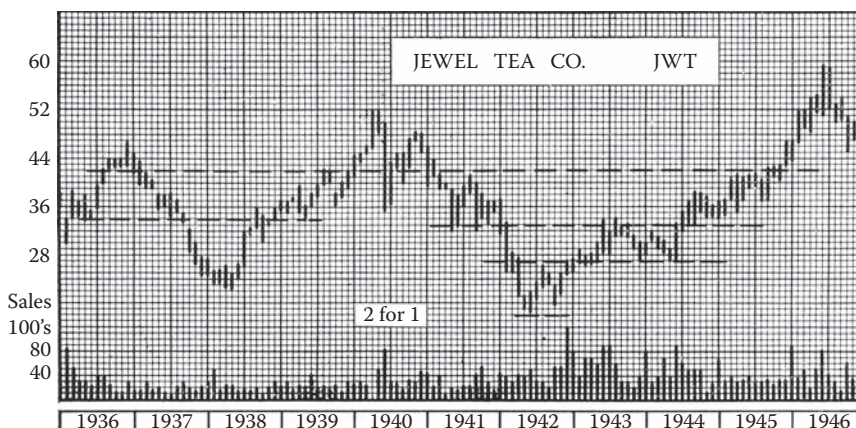


Figure 13.5 A monthly chart of Jewel Tea Company with its Major Support–Resistance Levels marked. Note the reversal of roles.

of up waves. Such a move is seldom followed by a reaction to the Support now left far behind, but rather, by the construction of some sort of Area Pattern—which may be either Consolidation or Reversal.

The other type of disruption appears when a reaction does *not* halt and reverse at the level of the previous Minor Top, but sifts on down through that zone, perhaps to the level of the preceding Minor Bottom. This move has “broken its Support,” and any such action carries a distinct warning of a change in trend, a particularly emphatic warning if activity shows a tendency to increase as or after the Support is violated. Note we said *change* in trend rather than Reversal because the puncturing of a Minor Support Level may signify only a halt for sideways Consolidation, yet it may also foretoken an impending Reversal; either of these is a change.

If you will now call to mind the picture of a typical Head-and-Shoulders Top, you will see the decline from the head constitutes just such a break in Minor Support because it comes down through the level of the top of the left shoulder. You will recall this decline is often the first intimation we have that something in the nature of a Reversal Formation is developing.

Thus, even the violation of a nearby Support Level has a practical meaning in technical chart analysis. The breaking of a Minor Support should always be regarded as the first step in the Reversal of the Intermediate Trend. (If it turns out to be Consolidation only, there will be an opportunity later to reenter an abandoned commitment if desired.) By the same token, the breaking of an *Intermediate* Support Range is frequently the first sign of a Reversal in the *Major* Trend. We do not believe it is necessary to expatiate further on this principle. Recommended trading tactics based thereon are discussed in Section II of this book; Support and Resistance Levels are particularly useful as Basing Points for stop-loss orders, which are discussed there.

Popular misconceptions

The reader will understand all we have said here about the breaking of Supports applies as well, but in reverse direction to the penetration of Resistance Levels. One more point may well be mentioned before we leave this subject; if you happen to have spent much time in

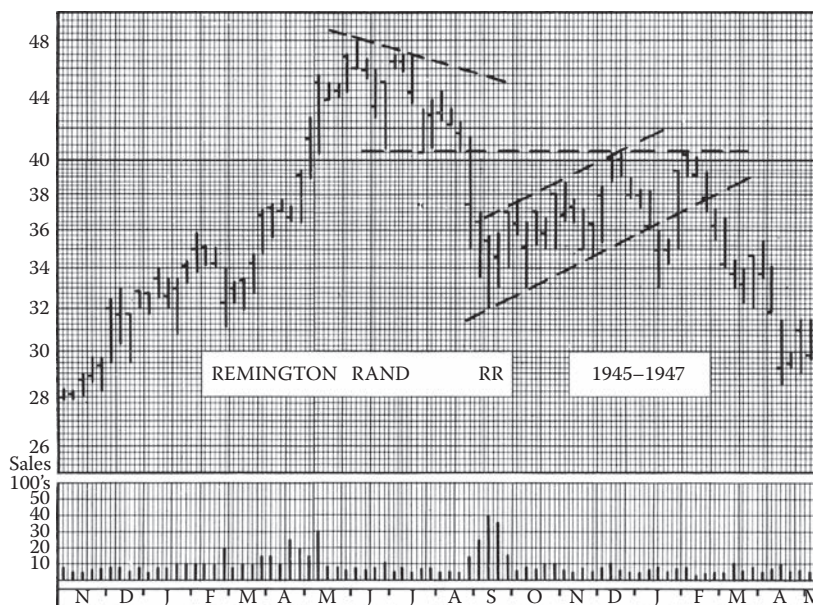


Figure 13.6 When prices broke down out of the large Descending Triangle that formed on Remington Rand's weekly chart in 1946, the decline might have halted, at least temporarily, around 37 at the level of the four-week Congestion made in April and should have "caught Support" at 35–36, the level of the February top. Failure of the latter carried Major Trend significance. Note later Resistance at 40 1/2.

boardrooms, you will have noticed the concepts of Support and Resistance prevalent there are somewhat different from those outlined in this chapter. For example, if X has advanced to 62, reacted to 57, and then pushed on to 68, many traders will speak of 57 as being the Support Level, presumably because that was the last price at which X was supported in sufficient strength to turn its trend from down to up. We, as you have seen, would name the vicinity of 62 as the Support Range. The distinction is important to grasp and sometimes extremely important in practical results.

Admittedly, it does not come easy to think of a former Top as denoting the level at which a later Bottom should form, or vice versa; it would seem superficially to be much more logical to relate Top to Top and Bottom to Bottom. Moreover, it is perfectly true, to use our X example again, that some of the investors who wanted to buy it at 57 might not have succeeded in getting it before the second advance to 68 took it away, and their buy orders might still stand at 57 or might be reentered on any return to that price. Nevertheless, there is certainly no assurance that such is the case; there is no "vested interest" in X at 57 that will "automatically" bring in new buying. On the other hand, we have seen how there is a sort of vested interest set up at an old Bottom that produces selling (Resistance), and thereby creates a new Top, and at an old Top that produces buying (Support) and thereby creates a new Bottom.

The reader is urged to keep this concept well in mind. Any analytical study of the chart records will quickly show it is much easier for prices to push up through a former Top level than through the Resistance set up at a previous volume Bottom (and vice versa, of course, with respect to declines). You will find a little selling may come in at a former high, but usually only enough to cause a brief halt rather than the more or less extensive reactions or Consolidations that develop when the trend comes up against a real Resistance Zone.

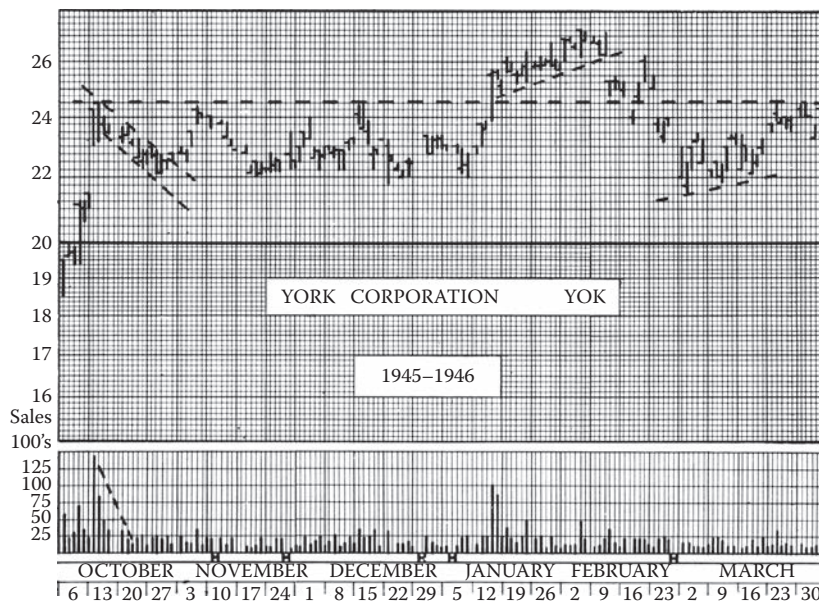


Figure 13.7 York is a relatively thin stock, which normally makes many small, technically meaningless gaps, but its large, high-volume gap of October 8, 1945, demanded attention. It looked like a Runaway Gap, and as such implied continuation to 26 1/2 plus, but prices halted their advance at 24 1/2 and went into a three-month Rectangle. An upside breakout on January 10, 1946, carried out the minimum measurement of the Rectangle (and October gap); prices then reacted. See sequel in [Figure 13.8](#).

The round figures

There are certain other levels that may, at times, evidently produce considerable Resistance or Support without any reference to a previous “vested interest.” We have in mind the “round” figures 20, 30, 50, 75, 100, etc. In setting a goal for taking profits when we buy a stock, it is natural for us to think in terms of such round prices. If a low-priced stock has advanced steadily from around 10, it is pretty certain on this account to meet with profit-taking sales at 20, *especially if that figure represents a new high for several years*. In fact, any time an issue gets out into new all-time high ground, where there is nothing in its chart history to indicate otherwise, it is a fairly safe bet that Resistance will appear at the round figures. In old and actively traded stocks, such as U.S. Steel (*EN*; or *IBM* and *GE*), the round figures diminish in importance.

Repeating historical levels

If, once they had been set up, important Support and Resistance Levels always “worked,” we should see Intermediate Tops and Bottoms form at exactly the same ranges year after year in one Bull and Bear cycle after another. As a matter of fact, there is a well-marked tendency for this to occur in old-line, actively traded stock. In General Electric, for example, the 22–24, 34–35, 40–42, and 48–50 zones were characterized by large turnover (and, consequently, by many Intermediate Reversals of trend) throughout the 1920s and into the 1950s. In Southern Pacific, there are historical Support and Resistance Zones at 21–22, 28–30, 38–40, and 55–56. In U.S. Steel, 42–45, 55–58, 69–72, 78–80, and 93–96 are conspicuously marked as Reversal

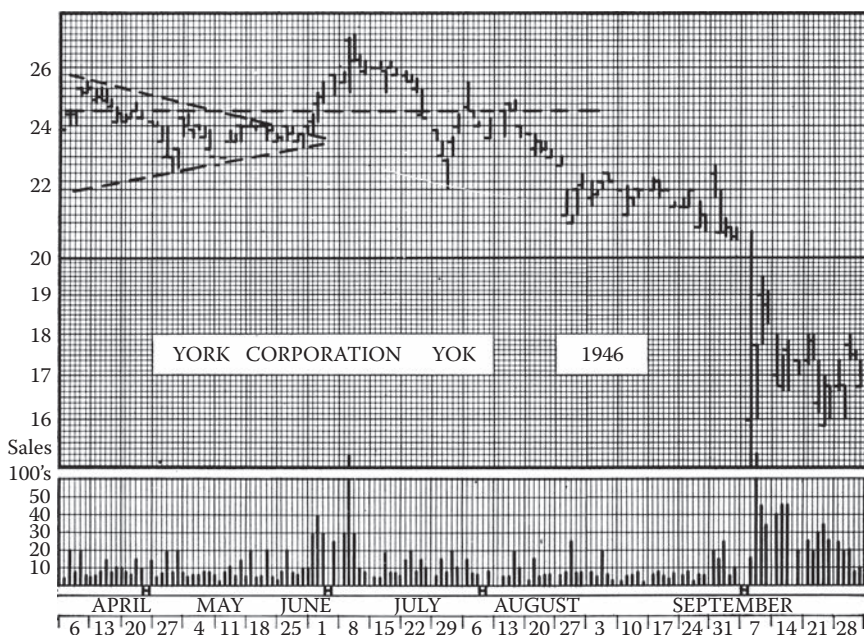


Figure 13.8 The February reaction in [Figure 13.7](#) met momentary Support at 24; prices bounced far enough to close the February 7 gap and then broke down through the Rectangle Top-Line Support technically a distinct warning. Then a Symmetrical Triangle formed, but the breakout came too near the apex, produced only a rally to the former high, and then an “end run.” One did not need to wait for the Double Top signal on August 22 to forecast a decline of more than minor consequence.

Ranges. Additionally, many other stocks might be cited. (*EN9: While the particular stocks are dead or transmogrified, the principle is alive and well.*)

Over long periods, however, such Support and Resistance Levels do tend to be gradually modified, broadened, or “blurred” as new ones are created. One source of many important new Supply Zones is a Bear Market Panic. For this is the one type of decline that can be counted on to pay no heed whatsoever to previous underlying Support Zones. Panics (which, as seen in our earlier study of Primary Swings in connection with Dow Theory, typify the second phase of Bear Markets), once they get under way, seem to sweep away all potential Support in their calamitous plunges until they exhaust themselves in a general market Selling Climax for which may or may not come at a level that bears a relation to some previously established Support. To use U.S. Steel again as an example, the 1937 Panic Decline took the stock down through its 93–96 range, hesitated briefly at the 78–80 level, and then plunged through 69–72 and 55–58 to stop just above 50. In the 1946 Panic, X again broke swiftly through 78–80 and 69–72 to halt at 66.

When there is a large turnover at a Panic Bottom in any given stock, that level acquires a strong “vested interest” for the future and will usually furnish conspicuous Resistance to a subsequent advance (after another Bear Market Decline has taken quotations below the Panic Level).

This discussion of Panics brings us back to a consideration of Support and Resistance performance at other stages of the Primary Trend. Bearing in mind the relation of Resistance to volume, it is easy to see why in a long drawn out but otherwise typical Bear Swing in which trading interest diminishes to a very low ebb as the final low is approached, the next

to the last Intermediate Bottom may produce relatively little supply and, consequently, only a small reaction when the new uptrend reaches its level. Add to this the fact that many of the buyers in the last stages of a Major Decline are deliberate scale-down investors who fully expect prices will go lower and, hence, are not easily shaken out. The slow progress so often seen in the first part of a new Primary Bull Market is due not so much to overhead Resistance as to lack of impatient public bidding.

The Recovery Trends that follow precipitous Bear Market Panics usually exhaust themselves, for obvious reasons, long before they get back up to the last Resistance Level left behind in that Primary Downswing (which is usually the Bottom of the first Intermediate Decline from the extreme Top of the cycle), but they often meet supply at a lower Resistance Zone set up *in the preceding Bull Market*. Look way back on your charts, therefore, when sizing up the prospective advance in such situations.

A further thought along that line is this: there is no law that requires an advancing trend to keep right on climbing until it reaches a distant overhead Supply Zone. It is true, as a corollary that we have already mentioned to our Support and Resistance Theory, that prices can and do rise easily through a price range at which no Bottoms or Congestion Areas have formed in previous downtrends, but if the first established Resistance Level is a long way above, the advance may exhaust itself before it gets there. Heavy supply *may* come in for other reasons at a lower level. Think, then, of a distant Resistance Level as a maximum possibility rather than as a certain goal. However, between two stocks whose purchase you are considering, you should select the one, other things being equal, with the “thinner” track overhead and can rise farther before it encounters a charted Supply Zone.

Pattern Resistance

We can revert now to some of the Minor phenomena discussed in connection with Reversal and Consolidation Patterns in earlier chapters. Take gaps, for instance. You will now see why it is easy and, hence, quite in order for a reaction that comes soon after a gap has been made to slip back and close that gap. There is no “vested interest” whatever in the range through which prices skipped to form the gap on the chart. You will also see why such a reaction may stop short and reverse as soon as it has closed the gap, *provided* there was a high-volume turnover in the price range immediately preceding the gap. Such is usually the case with a Breakaway Gap.

Any gap, for the same reason, is easy to close once a reaction starts prices moving back in that direction, if it is not too far away and if there are no intervening Resistance Levels to stop the reaction before it gets there. In the case of a Runaway Gap, however, there is no reason why a reaction should halt as soon as it has covered the gap range; on the contrary, it will probably continue on through the “thin” price track that preceded the gap.

Pullbacks and Throwbacks—the quick return moves that we noted as developing so often shortly after a breakout from a Head-and-Shoulders or other Area Pattern—exemplify the principles of Support and Resistance. When prices break down, for example, out of a Descending Triangle, the horizontal lower boundary of the formation, which was originally a Demand Line, promptly reverses its role and becomes a Resistance Level. Any attempt to put prices back up through it, therefore, after a decisive breakout, is stopped by supply at or near the line. By the same token, the neckline of a Head-and-Shoulders Top, which was a Demand Line, becomes a Resistance Level after it has been broken. The Top or Supply Line of a Rectangle becomes a Support after prices have pushed above it on volume and by a decisive margin.

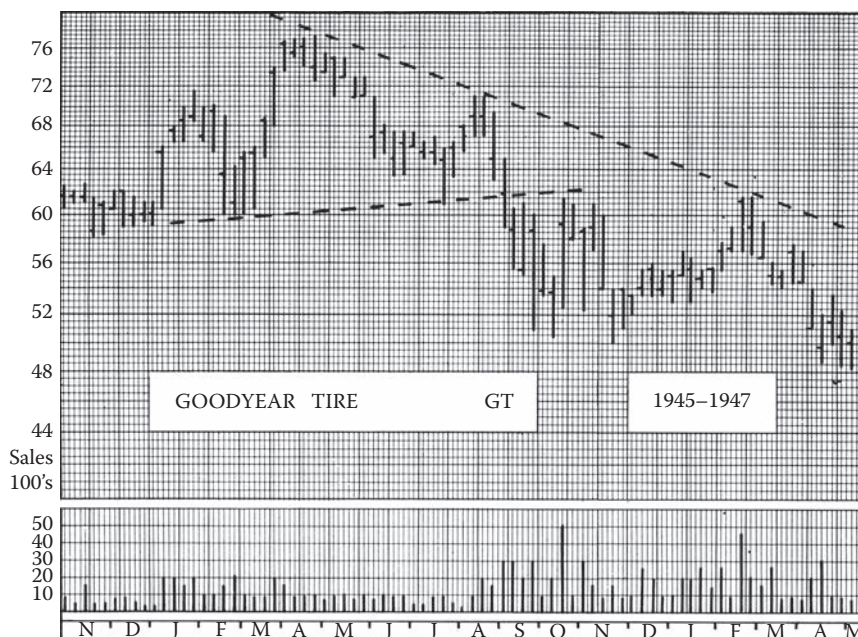


Figure 13.9 We first discussed Pullbacks in connection with the Head-and-Shoulders in [Chapter 6](#) and refer to them again in this chapter as Support–Resistance phenomena. At least one Pullback to the neckline (after the breakout) occurs in the great majority of cases. Many Head-and-Shoulders Formations produce two, the first within a few days after the breakout and before prices have gotten very far away, and the second weeks later, sometimes after the minimum measurement of the Head-and-Shoulders has been fulfilled. Goodyear saw the unusual number of four Pullbacks to its 1946 neckline in the first two weeks after the August breakout, another in October, a third in November, and a fourth in February 1947, which met the Double Resistance of the neckline and the down trendline (see [Chapter 14](#)) projected from the 1946 April head and August right shoulder.

Earlier in this chapter, in our discussion of the three criteria for appraising the amount of Resistance to be expected at a former Bottom level, we named “distance away” as one of the criteria and stated as a general rule that prices should have gone at least 10% beyond that level in a medium-priced stock before much Resistance would be set up. This 10%-away rule does not apply in the case of a Throwback to a well-defined area formation when it follows shortly after a breakout. All that is necessary to establish strong Resistance to such moves at the pattern boundary is a conclusive breakout.

The Symmetrical Triangle has a different sort of Support and Resistance “field.” You will recall that the first Reversal point in the formation of a Symmetrical Triangle (a Top, if it forms on a rising trend, or a Bottom if on a decline) is normally accompanied by high trading volume, but that activity diminishes rapidly on succeeding fluctuations within its converging boundaries. Consequently, once prices have broken out of the Triangle and have proceeded well beyond the level of the pattern’s first Reversal point, that level, because of the volume of shares traded there, becomes a Support (or Resistance) against a subsequent reaction. But, if the breakout move does not carry beyond the Triangle’s first Reversal Level by a clear margin, any Throwback will probably bring quotations back to the extended (sloping) pattern boundary. If the reaction does not occur until the trend has worked out to or beyond the Triangle’s apex, then the Throwback usually will not meet Support (or



Figure 13.10 Several examples of the Support “field” of the Symmetrical Triangle appear in this 1945 daily chart of “IT.” Following the belated February 5 breakout from the first Triangle, prices returned on the 9th to the level of the mid-January Top, but then suffered a more extensive reaction, which came down on February 26 to the Triangle’s apex level. This was a critical juncture. The apex point itself is a strong Support (or Resistance), but its level becomes weaker as time passes. In this case an “end run” might have been developing. Stop-loss orders should always be entered under an apex level (see [Chapter 27](#)). Here the apex held, however, and prices went into another “Coil,” breaking out topside on March 10. Their next reaction was supported, as was to be expected after an early breakout like this, at the Top Pattern Line. The price track from mid-March to the end of April fell into an Ascending Triangle Pattern, the top boundary of which functioned as Support in June but was broken in July. Refer to [Figure 11.17](#).

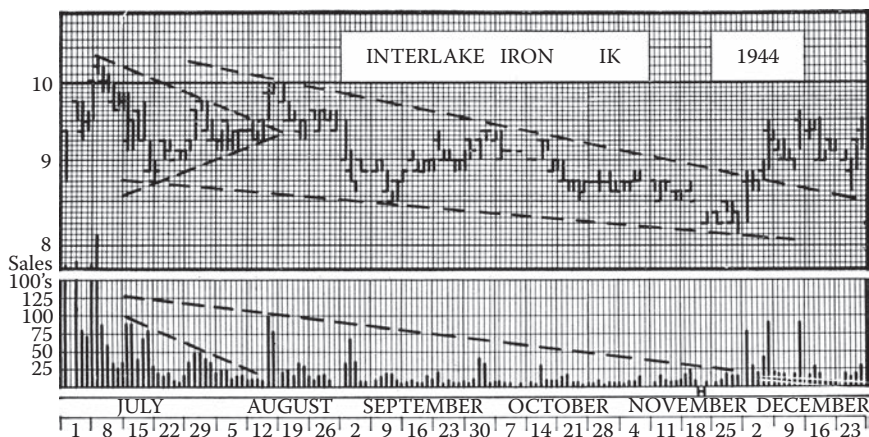


Figure 13.11 In this instance, a belated upside breakout (August 10) from a Symmetrical Triangle failed quickly and the subsequent reaction, after holding for several days at the apex level, finally broke down for an “end run.” Thereafter, note the apex level turned into a Resistance against Recovery Moves.

Resistance) until it has carried back to the level of the apex, which, in brief, represents the concentration level or *axis* of the Triangle's Support and Resistance.

The intersection of the two converging boundary lines of a Symmetrical Triangle has sometimes been called a "cradle." The axis Support (or Resistance) is strongest near the cradle point and gets weaker as the axis line (apex level) is extended out to the right on the chart (i.e., as time passes). Thus, if a late breakout move fails to carry prices very far from the Triangle area, and the trend then peters out, flattens, and begins to react *after* the cradle point has been passed in terms of time, its action, as it reaches the axis line, must be closely watched. (A stop-loss order may be indicated here.) Should the axis Support fail to hold, the reaction may plunge through and accelerate in a more extensive swing, which has aptly been termed an "end run around the line."

Volume on breaks through Support

On those occasions when prices fail to retreat when they hit a Resistance (or Support) Range, but perhaps after holding there for several days, push on through, there is nearly always a sudden acceleration and a marked pickup in volume. This may be taken as confirmatory evidence of a decisive break and, consequently, an indication the move will carry on. The reasons for this volume increase are obscure. Some say, "It takes volume to overcome

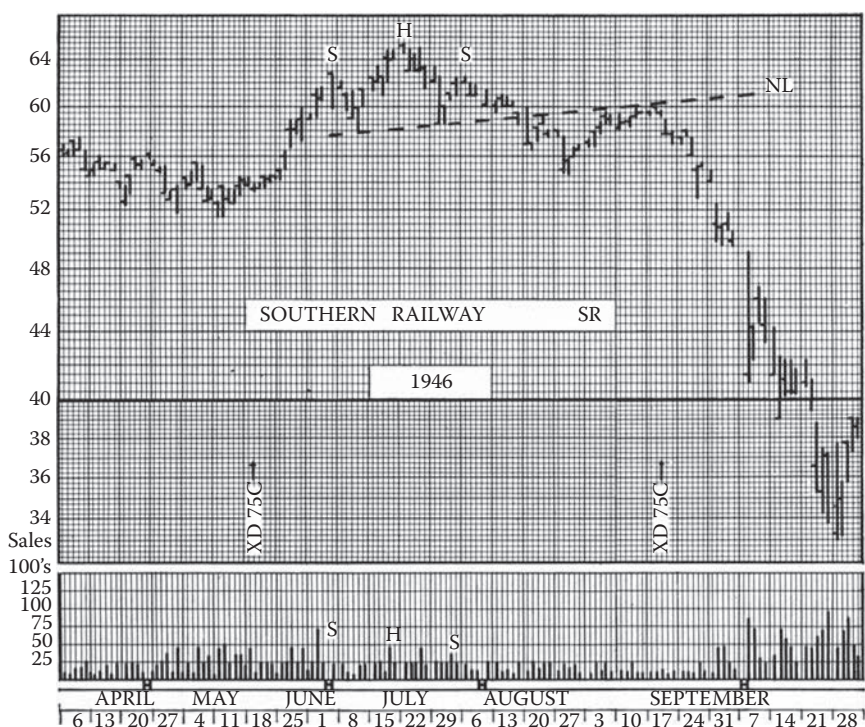


Figure 13.12 Here is a typical case of two Pullbacks to a Head-and-Shoulders neckline, the first immediately after the breakout and the second three weeks later. Note the initial breakthrough "bounced" from the early April Top Support and the late July decline met Support at the general April–May Congestion Area. However, what this chart particularly illustrates is how volume increases when a good Support Range is penetrated. Note the decided pickup on August 27, when the April–May area was left behind.

Resistance," which is true enough, but the volume usually comes *after* the Resistance has been penetrated. Therefore, others say, "The volume is evidence that technicians see what has happened and are now jumping in." But that line of thought, in the authors' opinions, also has little to substantiate it. (We shall have more to say about the questionable influence of technicians on the trend later on.) Many of the arguments over volume change versus price change smack of the old hen-or-egg riddle. In any event, causes for many technical phenomena, such as this one, may be left to the academicians, provided the practical implications are clear.

Support and Resistance in the Averages

As has been the case with nearly every other technical phenomenon we have studied, the principles of Support and Resistance apply, with suitable allowances, to Averages as well as to individual stocks. Since an Average reflects the combined charts of the majority of the issues that compose it, but with a minority of them frequently evincing quite divergent patterns, it follows naturally that Support and Resistance Zones in the Averages cannot be as sharply and narrowly construed. Minor Tops and Bottoms in the Averages, particularly, are less dependable as Resistance Levels. Clearly defined and important Intermediate Reversals, however, as they nearly always represent Reversals in the entire market (practically all stocks), will normally produce strong Resistance (or Support, as the case may be) in the subsequent Average Trend.

When the Averages break down through a Support Level, but simultaneously one or more stocks hold firm at or above their corresponding individual Supports, there is a presumption that those particular stocks are in a stronger position than others to participate in the next recovery. The phrase "other things being equal" should be added, however, for there are qualifications to this presumption that must be considered. For instance, it may be that the stock that has resisted decline will, for that very reason, be less attractive to new buyers than one that broke drastically and is now purchasable at a more "attractive" price.

Many of the claims made regarding future prospects for stocks that have, by one criterion or another, previously evinced "better-than-Average" or "worse-than-Average" market performance permit argument either way. It is safest to treat all such relative performance indications as only one minor factor to be appraised in the overall chart picture.

chapter fourteen

Trendlines and Channels

One of our basic tenets in this system of technical stock chart analysis—indeed, a fact that any neophyte can quickly verify for himself by inspection of the market records for whatever period he chooses—is that *prices move in trends*. The market, in general, and the many stocks that compose it, do not jump up and down in an altogether random fashion; on the contrary, they show definite organization and pattern in their charted course. (For illustrations in this chapter, see [Figures 14.1](#) through [14.17](#).)

Prices move in trends. These trends may be either up or down or sideways (horizontal). They may be brief or of long duration. They may be classified as Major (Primary), Intermediate (Secondary), or Minor, according to the rules of Dow Theory, or as Horizontal Line Formations. (The distinction between a short Intermediate and an extended Minor Trend is often more difficult to make with individual stocks than it is with the Averages, but it is not so important.) Sooner or later, trends change; they may change by reversing from up to down or down to up, or they may also change direction without reversing as from up to sideways and then perhaps to up again, or from a moderate slope to a steep slope, and vice versa.

Profits are made by capitalizing on up- or downtrends by following them until they are reversed. The investor's problem is to recognize a profitable trend at the earliest possible stage of its development and then later to detect, again as quickly as possible, its end and Reversal. The Reversal of any important trend is usually characterized, as we have already seen, by the construction of some sort of joint price and volume pattern—in brief, of a Reversal Formation.

The Trendline

All of the foregoing statements regarding trends have been expressed or implied in earlier chapters of this text. It is our purpose now to examine trends, as such, more closely, to see how they may be plotted most effectively on the charts, and to determine to what extent they can be used to reinforce or supplement the technical forecasts derived from our other chart formation and Support–Resistance studies—sometimes to furnish even earlier forecasts or warnings of change.

One of the first discoveries a new student is likely to make when he begins to inspect stock charts with a critical eye is that nearly all Minor and most Intermediate Trends follow nearly straight lines. A few readers will, perhaps, dismiss this as perfectly natural, something to be taken for granted. But the majority become increasingly amazed and excited as they delve deeper. Not only the smaller fluctuations, but also the great Primary Swings of several years' duration frequently appear on the charts as though their courses had been plotted with a straight-edge ruler. This phenomenon is, in truth, the most fascinating, impressive, and mysterious all the stock charts exhibit.

If we actually apply a ruler to a number of charted price trends, we quickly discover the line that most often is really straight in an uptrend is a line connecting the lower extremes of the Minor Recessions within those trends. In other words, an advancing wave in the

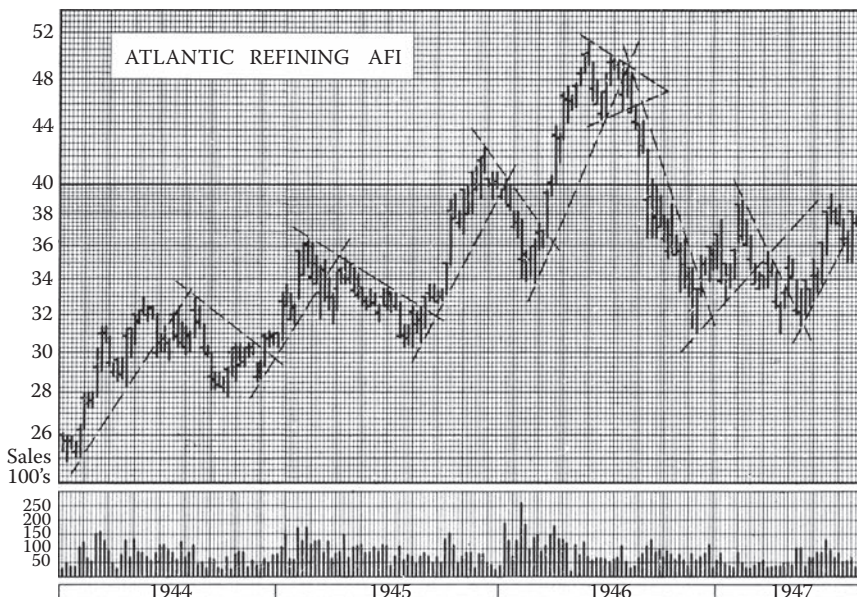


Figure 14.1 A series of Intermediate Trendlines drawn to illustrate the “basic” principle (see “How Trendlines Are Drawn”) on a weekly chart of Atlantic Refining, extending from January 1944 through August 1947. Observe that each up trendline required two distinct Bottom points to determine it, and each down trendline, two Tops. In some cases, the two determining points were formed only a few weeks apart, as in August and September 1945. The Bottom points that fixed the early 1946 up trendline, on the other hand, were months apart—February and June. Note that only final Trendlines are shown here. Many other experimental lines might have been drawn on this chart originally, including several uptrends whose Intermediate authority was questionable because they were “too steep”—as in early 1944, late 1945, and early 1946. There are also some interesting examples of Pullbacks (after trendline penetration) that are discussed later in this chapter. Note July 1944, April 1945, September 1945, and May 1947.

stock market is composed of a series of ripples and the Bottoms of each of these ripples tend to form on, or very close to, an upward-slanting straight line. The Tops of the ripples are usually less even; sometimes they also can be defined by a straight line, but more often, they vary slightly in amplitude, and so any line connecting their upper tips would be more or less crooked.

On a Descending Price Trend, the line most likely to be straight is the one that connects the *Tops* of the Minor Rallies within it, while the Minor Bottoms may or may not fall along a straight edge.

These two lines—the one that slants up along the successive wave Bottoms within a broad up-move and the one that slants down across successive wave Tops within a broad down-move—are the basic trendlines.

It is unfortunate that a more distinctive name for them has never been devised than the threadbare word “line,” which has so many other uses and connotations. A few analysts have called them “tangents,” a term that has the advantage of novelty, but, because it is a distinct perversion of the true meaning of the word *tangent*, confuses many readers even more. Perhaps tangent will eventually become established in this new sense. We shall be satisfied herein with the overworked “line,” and will give it some distinctiveness in its present context by joining it to trend in the one word “trendline.”

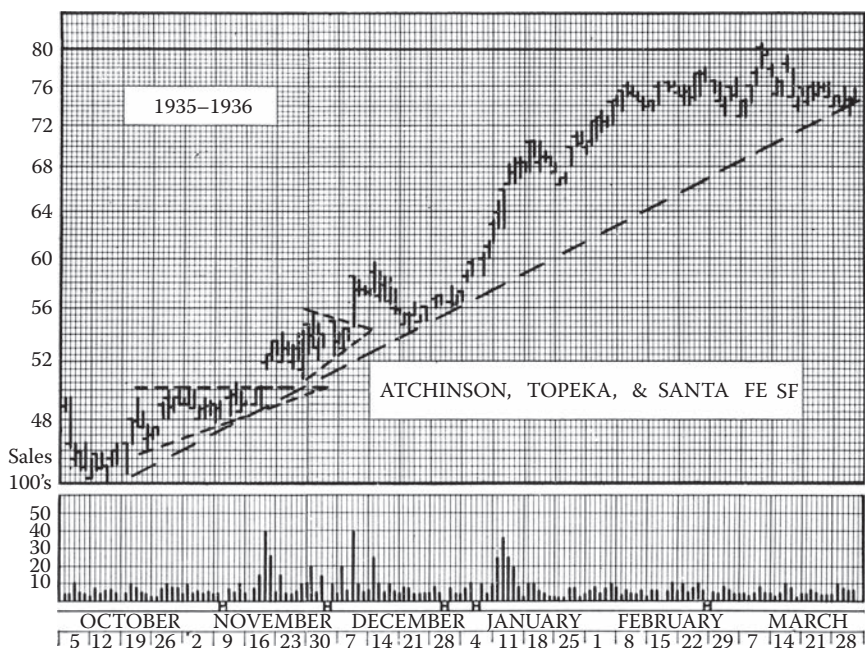


Figure 14.2 This 1935–1936 daily chart of Atchison illustrates how the latter part of a long, strong Intermediate Advance may accelerate away from its trendline. Notice the action in late January and early February. Prices dropped back to 66 in April 1936 after this Up Trendline was broken at the end of March. Note also at the point at which the December 1935 reaction met Support, the trendline coincided with a Triangle apex level. Such “coincidences” appear frequently in technical studies.

Trendlines, you may have heard it said, “are made to be broken,” but that is one of those exasperatingly sententious remarks that fails to clarify anything. Of course they are broken; they are all always broken, ultimately, and some very shortly after they are set up. The problem is to decide which breaks (i.e., penetrations by a price movement) are of important technical significance and which are of no practical consequence, requiring possibly only a Minor Correction in the drawing of the original trendline. There are no 100% certain quick answers to this problem; the significance of some penetrations cannot be determined as soon as they appear, but rather must await confirmatory indications from other chart developments. In a great majority of instances, however, an important break—one that requires a prompt review and possibly a revision of trading policy—is easy to recognize.

How Trendlines are drawn

First, how are trendlines drawn? A straight line is mathematically determined by any two points along it. To draw a trendline, therefore, we require two determining points—two established Top Reversal points to fix a Down Trendline and two established Bottom Reversal points to fix an Up Trendline. The principle here is the same as the one we laid down in our specifications for drawing Triangle boundary lines in [Chapter 8](#). The fact is that boundary lines of Triangles and Rectangles, as well as necklines of Head-and-Shoulders Formations, are simply special types of trendlines.

Suppose we start with a Major Bottom point and describe how a series of Up Trendlines might develop therefrom. To make this first illustration simple, let us assume the Bear

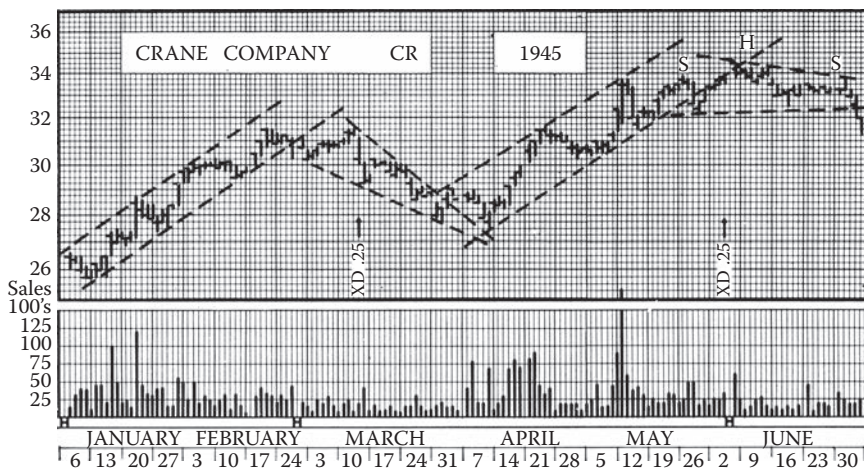


Figure 14.3 Trendlines that defined the short-term swings in Crane Company in 1945. Note three Bottoms formed on the first up-line and the third rally (late February) in this advance failed to reach a line drawn across the earlier Tops parallel to the Basic Trendline. A failure of this sort frequently precedes a break in the trend. The same thing happened at the end of the second uptrend in late May. “Failures” and the use of parallel or “Return” Lines will be discussed later in this chapter. The downtrend in March assumed a Wedge form. Observe how the April 6 reaction met Support at its previously penetrated Top line. In June, a rally met Resistance at the previously broken Up Trendline. Such Pullbacks are common. The small Complex Head-and-Shoulders in June was never completed because prices did not break down out of it by the required margin.

Market Bottom in our stock consisted of a Rectangle area between 6.5 and 8, and the last move in this formation arose from the 6.5 level, broke through the pattern’s Top at 8, and proceeded to 9. From 9, prices reacted to 8 and then headed back up again. As soon as this last rally had gone far enough to leave the dip to 8 showing in the clear as a Minor Bottom, we could draw our first Up Trendline because we then had two Bottom points, the second (8) higher than the first (6.5), to fix its slope. This would be a Minor Up Trendline. We would rule it in lightly on our chart in pencil and extend it on up and ahead for, perhaps, a week or more. (It will help you to visualize our example if you sketch it on a scrap of chart paper.)

To proceed, suppose prices push up to 10, then move sideways for a few days, or dip slightly, until they have approached and touched, once more, our extended Minor Trendline. Then they start to move up in a third advance, but they run into supply again without making much progress, quickly make a fourth contact with the trendline, hesitate, and then break down through it. If prices now close clearly below the line and if there has been some pickup in trading volume evident on the penetration, we may conclude our first Minor Trend is completed, plus our stock either will build some sort of Consolidation Pattern before it stages another advance or it will suffer a more extensive “Correction” than any of the brief dips it registered during its first Minor Upswing.

The whole Minor Uptrend we have described as an example in the foregoing paragraphs might well have run its course in two weeks; our first trendline would then have been very steep—too steep, obviously, to hold for any very long period of time. Now, let us assume a series of downward fluctuations produces the more extensive correction that we have foreseen as one probability following the trendline break that carries prices back to the Support Level set up at the Top of the original Rectangle, that is, at 8. (From our previous Support–Resistance studies, we would recognize this as a prime “buy spot.”) Assuming

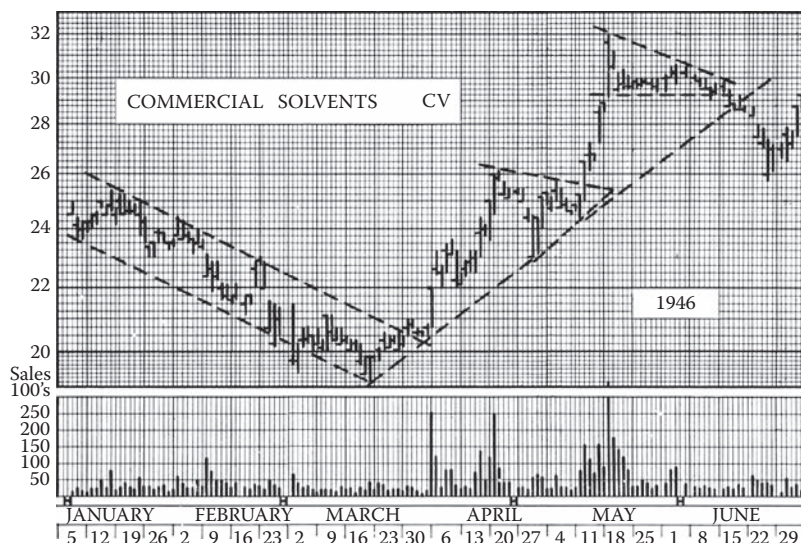


Figure 14.4 Intermediate Downtrend and Uptrend in Commercial Solvents in 1946. Note the increased volume on the March 30 penetration of the basic Down Trendline (and, at the same time, a breakout from a small Head-and-Shoulders Bottom). The drop through the lower parallel at the end of February had no technical significance. The Up Trendline from the March low was broken on June 14, simultaneously with a breakout from a Descending Triangle, which, as it turned out, was the final Bull Market Top.

that subsequent developments pursue a normal course, prices should not linger long at 8, but should start promptly on a new series of advancing fluctuations. As soon as this becomes evident and the new Bottom at 8 is “in the clear,” we can rule in a new trendline across the original base point at 6.5 and the new point at 8. This should be, and probably is, an *Intermediate Up Trendline* that will not be penetrated for several weeks, maybe for several months, until the Intermediate Advance tops out.

Subsequently, if that Intermediate Top takes the form of a Head-and-Shoulders Reversal Pattern, our Intermediate Up Trendline may be broken by the recession from the top of the head to the neckline. As a rule, however, the final advance in a strong Intermediate Move accelerates far enough away from the extended trendline to leave room (to the right on the chart) for considerable pattern construction before the line is again touched and penetrated. Hence, the actual puncturing of the trendline is more apt to occur either on the decline from the right shoulder to the neckline, or at about the same time as prices break down through the neckline to complete the Head-and-Shoulders signal. It is surprising to see how often the two lines, neckline and trendline, are broken *simultaneously*. In other instances, and there are many of them also, in which the trendline is the first to be punctured, perhaps shortly after prices turn down from the right shoulder, we do not have to wait for a neckline break but can take action at once. Here is one type of trendline indication that produces a working signal a little earlier, and often at a much more favorable price level, than is given by the completion of a Reversal Formation.

Arithmetic versus logarithmic scale

By this time, the more mathematically inclined among our readers must have begun to ponder the difference between trendlines projected on the ordinary or arithmetic scale

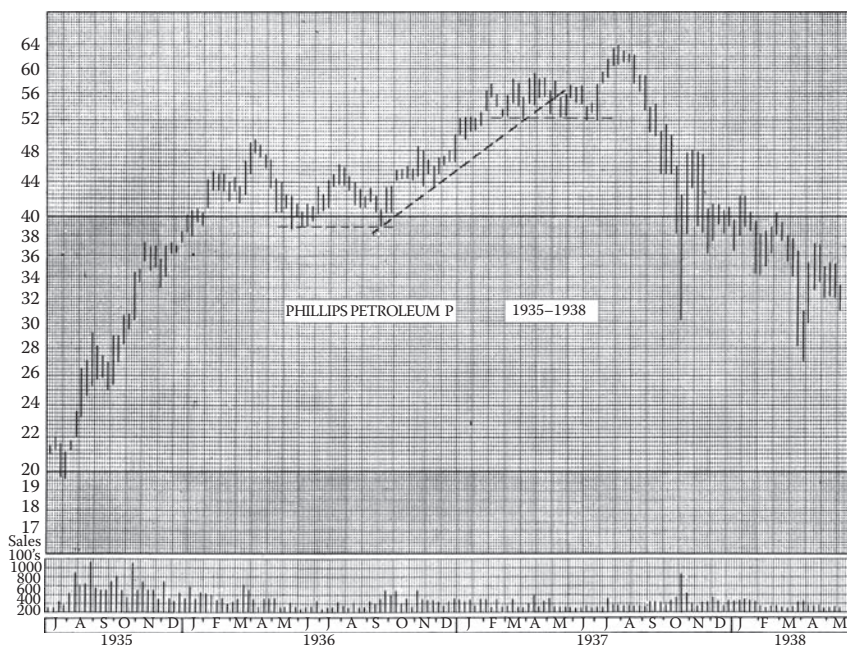


Figure 14.5 Valid trendline penetration and its normal consequences—Reaction or Consolidation—is illustrated on nearly every chart in this chapter and on many others throughout the book. This weekly chart of Phillips Petroleum is reproduced here to show an outstanding exception. The Intermediate Up Trendline projected from “P’s” September 1936 low up across its early October and late-November Bottoms was penetrated downside decisively the third week of May 1937. Moreover, a Multiple Head-and-Shoulders Top Reversal Pattern had been forming since February, with a critical neckline at 52. And the then-current Bull Market had already run for four years; “P” had come all the way up from 2! Cover up the chart from July 1, 1937, and you will agree there was plenty of reason for any technician to sell at once without waiting for the 52 neckline to be broken. But this, as we have said, was one of the exceptions that occurs to all technical patterns and rules. “P” turned right around and shot up to 64 before it was finished. Nevertheless, developments such as this carry a valuable warning. They very seldomly appear unless the Major Trend has almost run out; any further rise is dangerous to follow.

and on the logarithmic or ratio scale. A series of points that fall on a perfectly straight, up-sloping line on arithmetic chart paper will, when transferred to a semilogarithmic sheet, produce a curved line that rises sharply at first and then gradually rounds over. Points that fall on a straight line on a semilogarithmic sheet will produce an accelerating curve on an arithmetic sheet, a line that slants up more and more steeply the farther it is projected.

As a matter of fact, this variance is of little or no importance in defining Minor Trends, as they seldom run far enough for the dissimilar characteristics of the two types of scales to become effective. The same holds true for average Intermediate Moves of normal slope. However, when it comes to very long and strong Intermediates, the divergence may become marked and may make a considerable difference in the time and level of ultimate trendline penetration. Therein lies one of the strongest reasons for using semi-logarithmic paper in charting stocks for technical analysis. Let us postpone further discussion of this point until we take up Major Trends and go on now with the Intermediate Lines that are much the same on either type of scale, concentrating on Intermediate *Uptrends*. (Intermediate Moves, rather than Minor, are emphasized for the obvious reason Minors are of little practical importance in either trading or investing.)

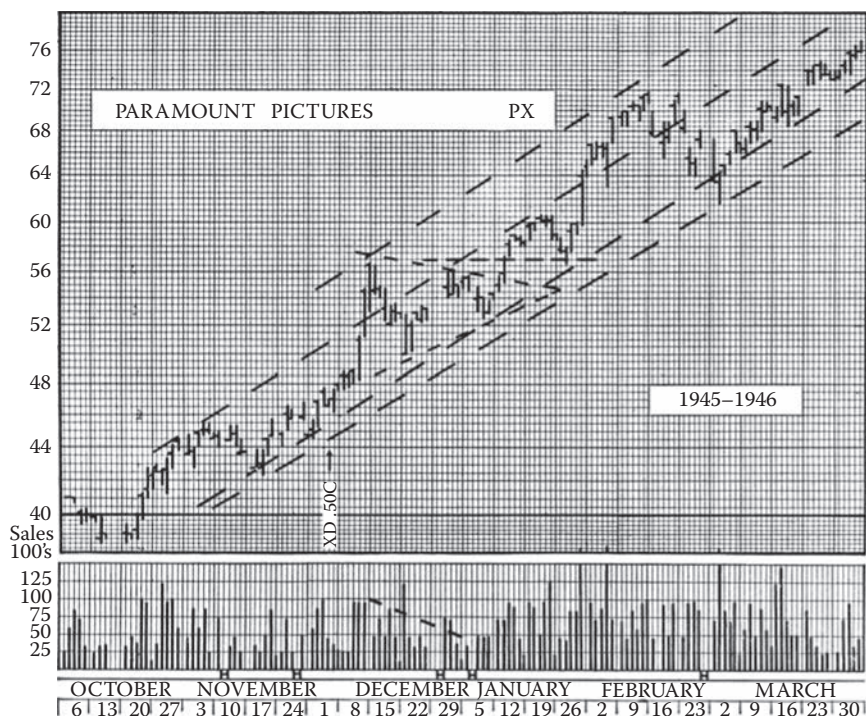


Figure 14.6 Double Trendlines (see next section) usually are not evident until after a trend has run for several months. In Paramount's accelerated phase of Intermediate Uptrend, which began in October 1945, the double nature of the basic trendline was not detectable until January 1946. The inner (upper) line was broken again in April, but the outer (lower) line was not decisively penetrated downside until May, at the Bull Market Top.

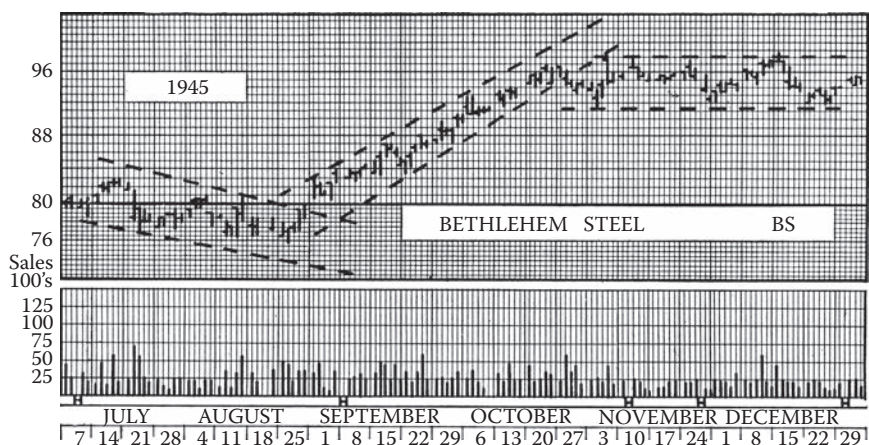


Figure 14.7 Trend Channels in Bethlehem Steel in 1945. Prices burst out of the 92–98 Horizontal Channel (Rectangle) on the upside in January 1946 and went on to 114. A short-term trader might have sold around 94–96 in early November (because of the uptrend break) and rebought at 99 in January on the Rectangle breakout. (See discussion of Channels.)

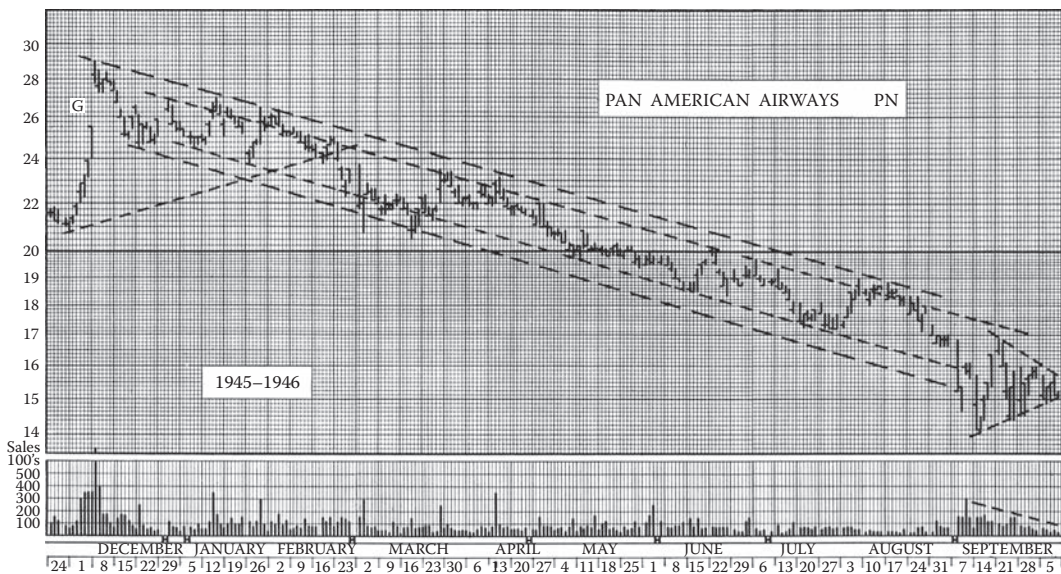


Figure 14.8 A 10-month downtrend, extraordinarily long and straight, which was nicely defined by Double Basic Trendlines above the Price Channel and also by a double set of Return Lines below it. The Major Top started with a strong One-Day Reversal on December 3, 1945 and worked out into a Descending Triangle that broke February 19, 1946. The Symmetrical Triangle beginning to appear in September 1946 also broke out downside.

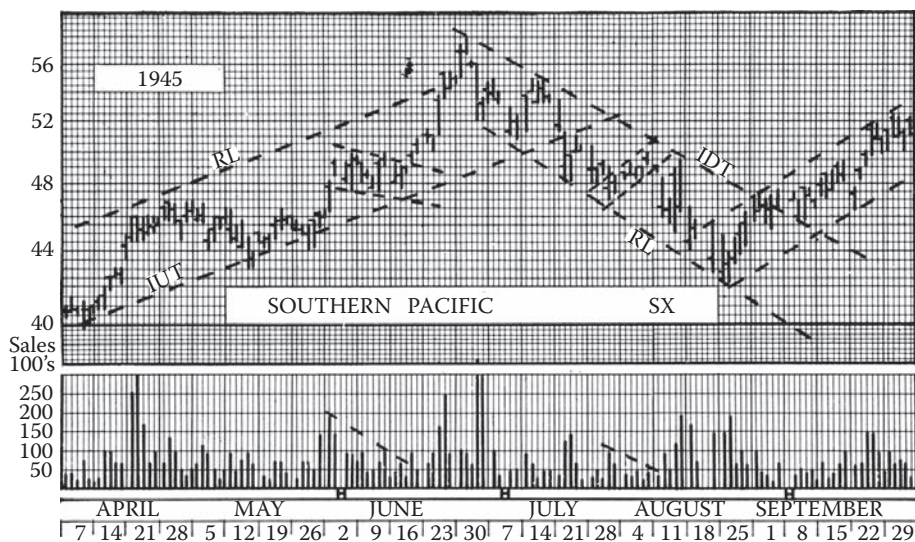


Figure 14.9 Well-marked Intermediate Basic Trendline and Return Lines in Southern Pacific, 1945. Note the Flags within Trend Channels—an up Flag in June and a down Flag in August. The Uptrend Channel, which began August 22, ran until February 1946.

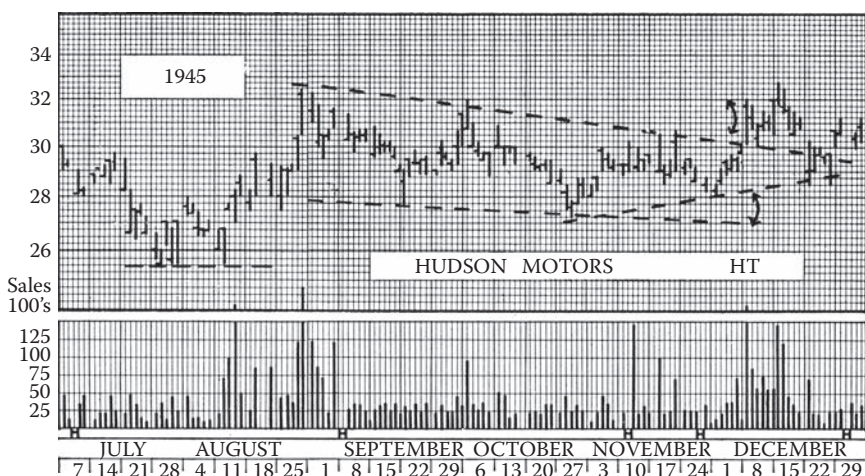


Figure 14.10 Note the extent by which prices failed to come down to their Return Line in late November measured the distance by which they advanced through and above the Basic Down Trendline in early December. This rule is stated in the discussion of Trend Channels.

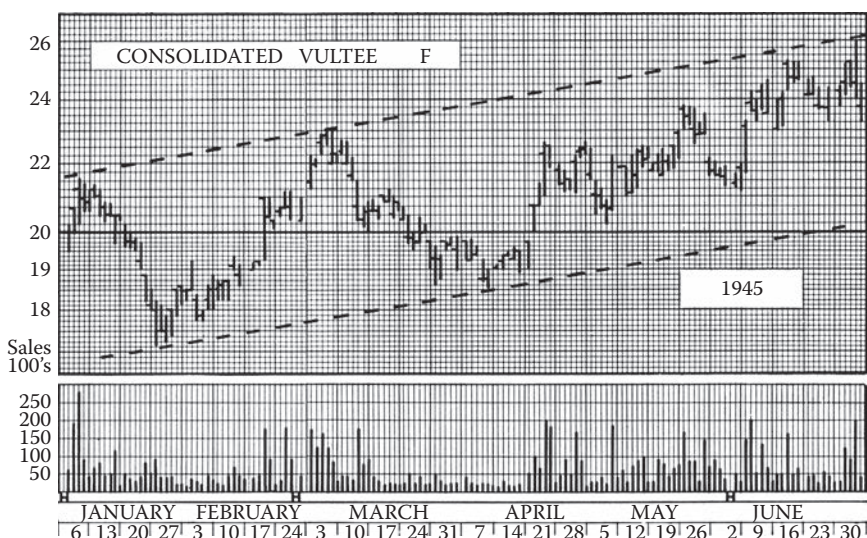


Figure 14.11 Six months of an Uptrend Channel that actually started to form in December 1943. It was broken downside in August 1945.

To go back to first principles, granting that price advances trend up in more or less straight lines, it follows that finding and drawing the lines that accurately define those trends, they will serve two purposes:

1. When the trendline is broken (i.e., when prices drop down through it in decisive fashion), it signals the advance has run out. It calls time for the intermediate-term trader to sell out that issue and to look for reinvestment opportunities elsewhere.
2. When a small Top Reversal Pattern forms on the chart of an issue well up and away from that issue's Intermediate Up Trendline, so that there apparently is room for

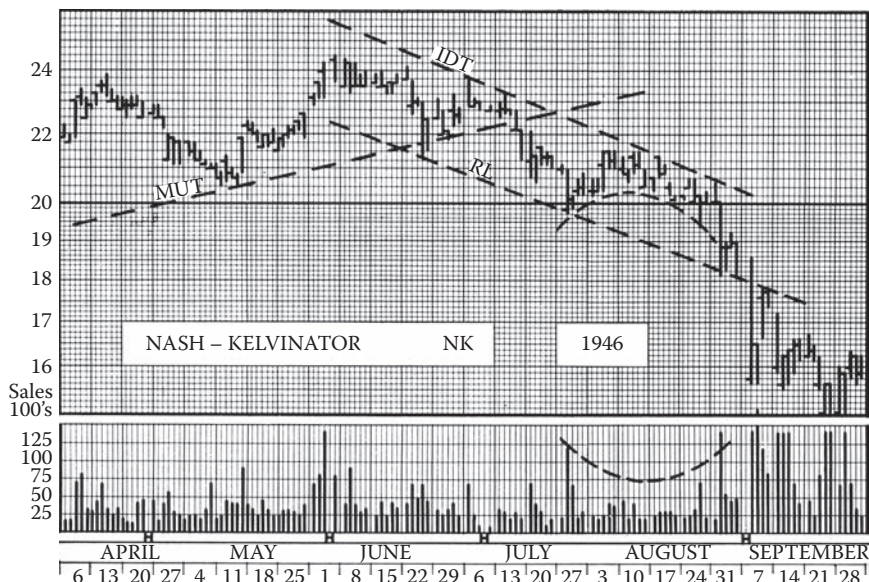


Figure 14.12 The downtrend that started in June 1946 in Nash-Kelvinator, signaled by the break of both its Intermediate and Major Up Trendlines (MUT) on July 15, made a nice channel until September. An Intermediate Down Trendline, drawn across the June 17 and July 1 highs, held for the August rally. The Return Line, drawn parallel to it across the June 20 low, held in late July but remained intact for only a few days at the end of August. The August rally in both price and volume pattern showed Bear Market characteristics. Compare this chart with [Figure 8.25](#) and you will see that a Major Double Top was signaled on July 23.

the downside implications of the Reversal Formations to be carried out *before* the trendline is violated, then the intermediate-trend trader may well decide to ignore the small Reversal Pattern. He can hold on so long as the trendline holds.

The advantages of the first-named trendline function are obvious. Those of the second, although less obvious to the inexperienced, are equally important to the investor who has learned it is an expensive practice to switch out of every holding as soon as it shows evidence of a Minor Setback, provided the chance of further Intermediate Advance still exists.

To accomplish these purposes it is necessary, as we have said, to find and draw the line that accurately defines the Intermediate Trend, and then to recognize when that line has been broken in decisive fashion. Our earlier quick review of how a trendline is constructed did not attempt to cover these points thoroughly.

Tests of authority

The following are some of the tests that may be applied to judge the technical validity, or authority, of an Up Trendline:

1. The greater the number of Bottoms that have developed at (or very near) a trendline in the course of a series of Minor Up Waves, the greater the importance of that line in the technical sense. With each successive "test," the significance of the line is increased.

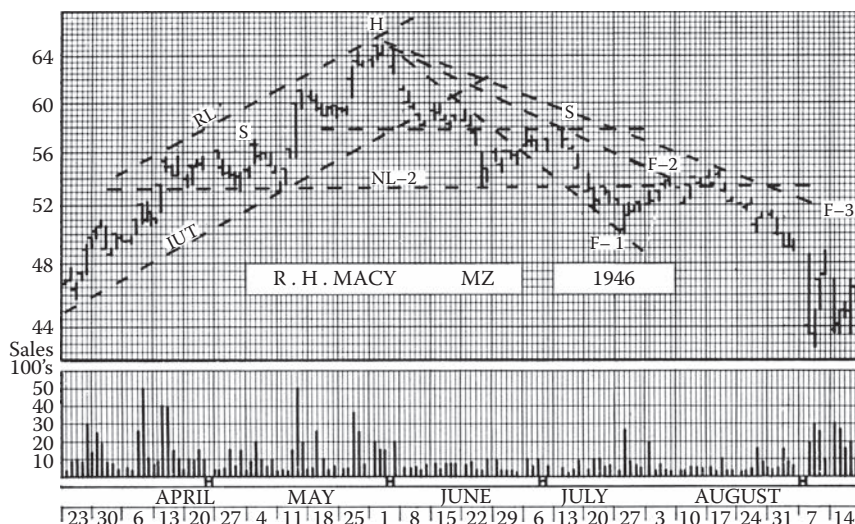


Figure 14.13 The decline that took Macy down through an Intermediate Up Trendline (IUT) in June 1946 turned out to be also the drop from the head of a “Flat-Shouldered” Head-and-Shoulders Top, which was, in turn, part of a larger Complex. The upper neckline was broken June 19 and the lower on July 16. Note Pullbacks to each. F1, F2, and F3 are tentative Fan Lines. Prices were finally able to clear F3 in December, but by that time, a Primary Bear Market had been signaled, so the Fan Rule no longer applied. Fans call the turn only on Secondary (Corrective) Moves.

A first and tentative Up Trendline can be drawn as soon as two Bottoms have formed, the second higher than the first, but if prices move back to that line a third time, make a third Bottom there, and start a renewed advance, then the validity of that line as a true definition of the trend has been *confirmed* by the action of the market. Should a fourth Bottom later form on it, and prices move up away from it again, its value as a trend criterion is very considerably enhanced.

2. The length of the line, that is, the longer it has held without being penetrated downside by prices, the greater its technical significance. This principle, however, requires some qualification. If your trendline is drawn from two original Bottoms that are very close together in time—say, less than a week apart—it is subject to error; it may be too steep or (more often) too flat. If the latter, prices may move away from it and stay high above it for a long time; they may then turn down and have declined well along in an Intermediate Correction before the trendline thus drawn is reached. But if the trendline has been drawn from Bottoms that are far enough apart to have developed as independent wave components of the trend you are trying to define, with a good rally and “open water” between them, then it is more apt to be the true trendline. Greater weight should be given to the number of Bottoms that have formed on a trendline (Test 1) than to its length alone (Test 2).
3. The angle of the trendline (to the horizontal) is also, to some degree, a criterion of its validity as a true delimiter of Intermediate Trend. A very steep line can easily be broken by a brief sideways Consolidation move—as, for example, by a compact Flag forming on an advance of the “mast” type—only to have prices shoot up again in another extensive advance. Such steep lines are of little forecasting value to the technician. The flatter, more nearly horizontal the trendline, the more important it is technically and, in consequence, the greater the significance of any downside break through it.

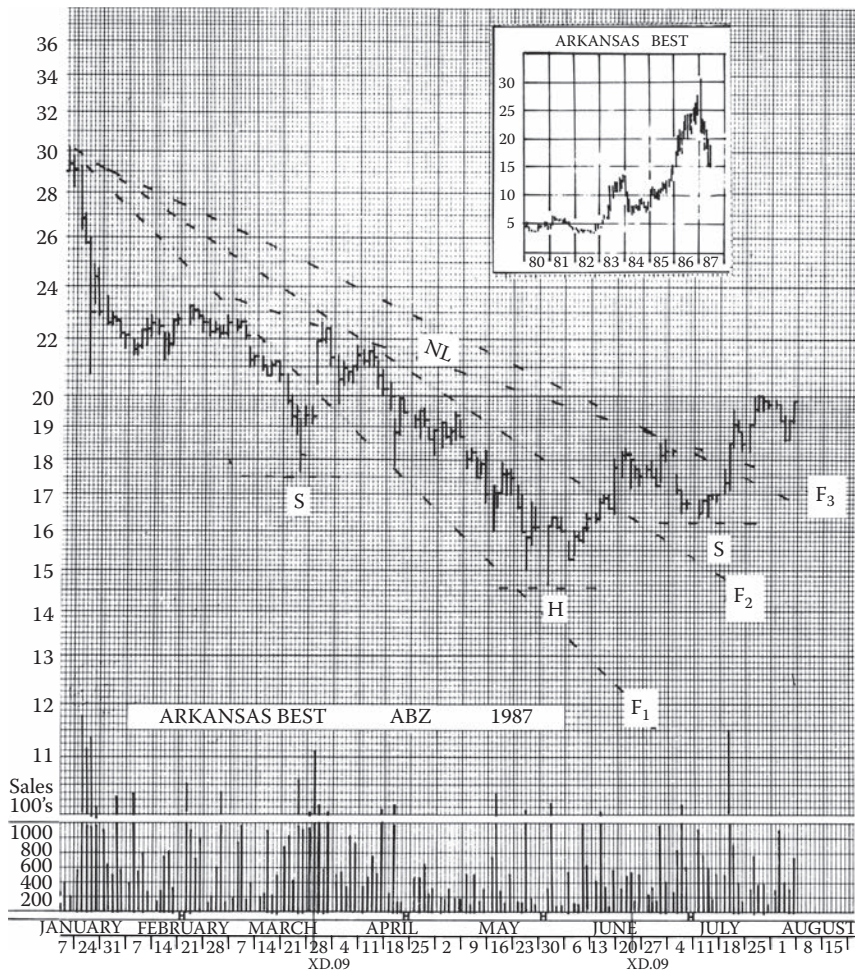


Figure 14.14 “ABZ” dropped sharply following its late January high, capping off a nearly uninterrupted two-year rally. But despite the rapidity and severity of the Pullback, it was, in fact, a picture-perfect reaction, which stopped just above excellent long-term Support at the 1983 high after retracing almost exactly 50% from its January peak. Not only is the reaction a classic, but so, too, is the Fan Line development, which, when coupled with the recently completed Head-and-Shoulders Bottom, suggests “ABZ” has reversed its short-term downtrend.

But “steep,” as applied to stock trends, is a relative term and one that we defies exact definition. Experience, which can only be gained by studying many charts and by actually building and working with them over a period of many months, brings an almost intuitive ability to distinguish between a trendline that is “too steep to hold” and one whose angle of rise is reasonable and should be maintained until such time as the trend is actually reversed from Intermediate Up to Intermediate Down. Trend slopes will vary from stock to stock according to their characteristic market habits. They will vary also according to the stages of the Primary Cycle—tending to become somewhat steeper in its later phases. The more chart history you have on any particular issue in which you are interested, the better able you will be to judge its present trend. (The foregoing statement, we might remark, applies to the interpretation of most other technical patterns and phenomena as well as to trendlines.)

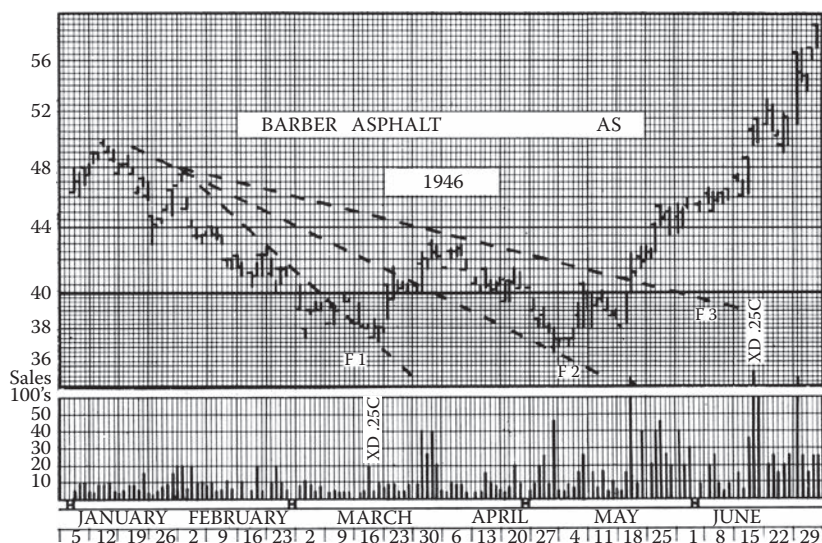


Figure 14.15 A valid application of the Three-Fan Principle. Note prices after they pushed up through F1 in March fell back to it but did not repenetrate it. When F2 was broken in late March, prices came back to it at the end of April but did not go below it. F3 was surmounted in May. This was a Bull Market Reaction; “AS” made its final Top above 64 in August. The March–May pattern might be called a weak Double Bottom.

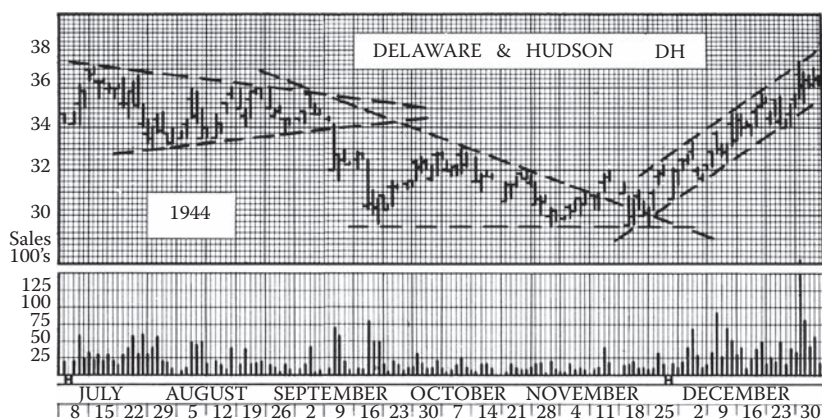


Figure 14.16 Try the Three-Fan Principle on this chart of the late 1944 Bull Market Reaction out of a Symmetrical Triangle in “DH.” F1 should be drawn from the August 30 high down across the September 12 closing. F2 is already marked on the chart but not labeled. F3 would extend from August 30 across the Rally Top of November 9. It was surmounted on increased volume November 21. The mid-September to November price pattern looked at first like a Descending Triangle, but volume began to rise in October.

One clue to relative steepness is afforded to those who employ the TEKNIPLAT semilogarithmic chart sheet, which has been used for most of the illustrations in this book. When projected on this scale, Intermediate Uptrends on the daily charts, in the great majority of issues selling in the 10 to 50 range, rise at an angle of approximately 30 degrees to the horizontal. Some will be a trifle flatter, some a trifle steeper, but it is surprising to see

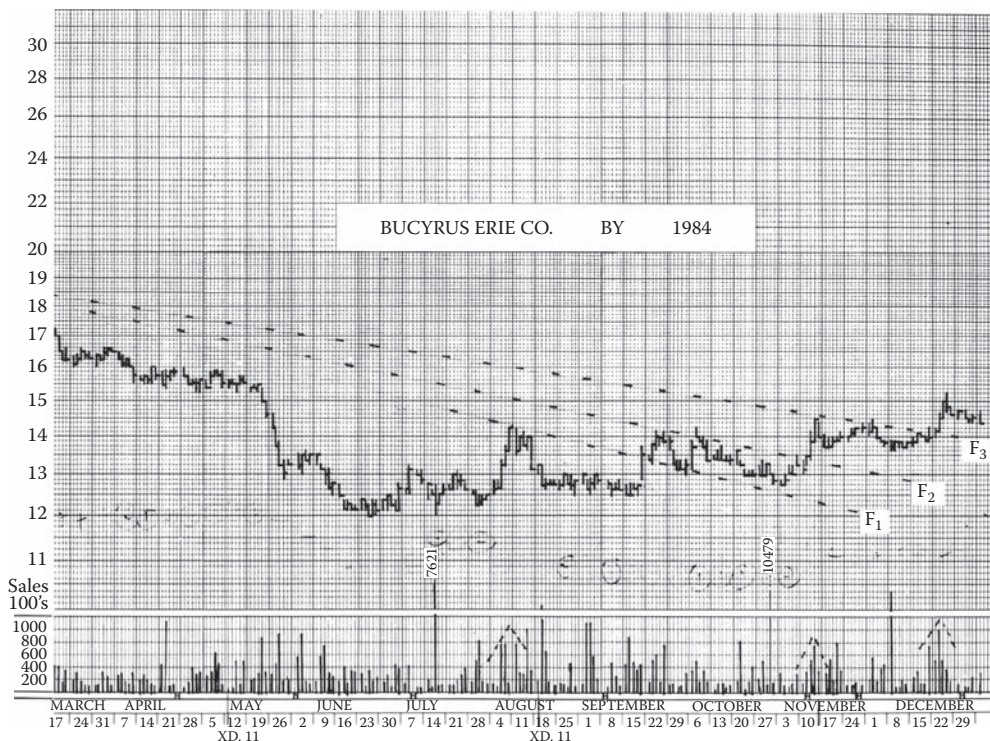


Figure 14.17 In a downtrend throughout the first half, “BY” gave back a large part of its 1983 rally by mid-summer. Nevertheless, the 1982 low held the Bears in check, and over the following several months, this issue etched out an excellent Fan Pattern. Fan Line 1 gave way in mid-September on a high-volume penetration. The advance quickly lost its momentum, but old Resistance—new Support contained the Pullback perfectly, setting the stage for a rally through Fan Line 2. This occurred in mid-November on good volume. Following a five-week correction, “BY” charged through Fan Line 3 on the best volume of the three breakouts.

how often the trendline falls very close to the 30-degree slope in stocks of average volatility and activity. Thin, highly speculative issues and heavy investment stocks offer exceptions, the former usually steeper and the latter flatter. The semilogarithmic scale has the virtue of reducing all movements, regardless of price level, to a ratio or percentage basis. On a straight arithmetic scale, the trendline will ordinarily be steeper on a stock trading in the 50 range, for example, than on an issue selling around 15.

On weekly charts employing the same price scale, the angle of Intermediate Advance will be much steeper than on the daily plotting. Different scaling will produce different angles. It is pure happenstance that TEKNIPLAT sheets tend to produce the 30-degree ascending line.

Unfortunately, TEKNIPLAT paper is no longer produced but a comparable analysis is easily produced with software from packages and online.

Validity of penetration

We have these three criteria, then, for appraising the authority or accuracy of an Intermediate Up Trendline: (1) the number of times it has been “tested” or contacted without breaking,

(2) its length or duration, and (3) its angle of ascent. Given a trendline that, by the application of one or more of these criteria (preferably by at least two of them), appears to be a reasonably accurate delimiter of the trend, our next problem is to determine when it has been finally and definitely broken.

Again, we can set up three tests or criteria, two of which are practically identical with the rules laid down in earlier chapters for determining decisive breakouts from Reversal or Consolidation Formations. The first is *extent of penetration*. To be decisive, prices must not only push through the line but also close beyond it by a margin equal to about 3% of the stock's price. This does not need to be accomplished in a single day, although it often is. The 3% penetration may come as a result of two or three days of gradual decline.

The second is *volume of trading*. We saw how activity should always be expected to rise notably on a genuine upside breakout from an Area Pattern but need not increase to confirm a downside break. We have seen how, in many cases, volume does not show much increase on the first day of a down-break from Descending Triangles, for example, but usually it picks up rapidly as the decline proceeds. In our present discussion, we are dealing with *Up* Trendlines, and their penetration is, therefore, analogous to a downside breakout. We should expect the same rules to apply, and in general, they do. Given a close beyond the line by a price margin of 3%, it is not necessary for volume to have expanded much at that point to confirm the validity of the penetration.

The fact is, however, that the breaking of an Intermediate Up Trendline, much more often than not, is attended by some visible intensification of trading activity. To that extent, then, an increase in volume may be regarded as confirmation of a decisive penetration. It is a particularly useful adjunct in borderline cases. If, for example, prices start to decline from a point somewhat above the trendline, move down through it on *conspicuously expanding* turnover, and close beyond it, say, only 2% of the price but at or near the bottom of the day's range, then our 3% margin rule has not been satisfied, but the lesser margin *plus* the volume action may be construed as decisive.

Beware, however, and do not be stampeded into a hasty commitment by the shakeout move that cracks down through a trendline with a great flurry of activity—perhaps several minutes of late tape—and then turns up again to close the day back above the trend or at least very close to it. This may very well be—in fact, usually is—a false move so far as that particular moment is concerned. But watch the next few days' performance very closely; the technical situation is evidently critical, or else a shakeout could not have been easily staged.

The third test is also one that applies particularly to breaks that are borderline so far as margin of penetration is concerned. Suppose a stock that is quoted in the neighborhood of 40 declines through a well-established Intermediate Up Trendline and closes 1 or 1 1/4 points below it—a margin that is only slightly less than our specified 3%—without much, if any, enlargement in trading volume. Suppose it fluctuates there for a day or two in a dull and narrow market and then starts to rally; if there is no pickup in activity on this recovery move—if prices simply edge up feebly to the underside of the trendline and tend to “round over” there without being able to close clearly above it—then the situation is indeed critical, and the slightest sign of renewed selling pressure may be taken as a signal that the uptrend has been decisively broken.

Such a return move as we have described in the preceding paragraph is known as a Throwback or Pullback. We previously described analogous developments that follow breakouts from Head-and-Shoulders and other patterns, and we will have more to say about them in connection with trendlines later on.

The three tests we have been discussing, which help to establish the validity of a trendline penetration, cannot, unfortunately, be applied inflexibly and without a modicum

of judgment. The majority of Intermediate Trendlines can hardly be said to possess the precision of pattern boundary lines, and even in the latter, some leeway must be allowed. There are exceptions, as we have taken occasion to remark several times before, to every technical rule of price action, but judgment in the establishing of significant trendlines and in interpreting their penetrations does come with experience.

Amendment of Trendlines

When a trendline is broken by a margin less than decisive, and prices subsequently rally back up through it again, doubt naturally arises as to the continued authority of the original line. Should it be discarded, revised, or allowed to stand as is?

Here again, judgment and experience must be called into play, but a few general principles are helpful in deciding. If the original trendlines depended on only 2 points, that is, on the first two Bottoms across which it was projected and the indecisive penetration occurred when prices returned to it for the third time, then the line had better be redrawn across the original first and the new third Bottoms. (Of course, you will not do this until prices have moved up from the third Bottom point and it has become clearly established as a Minor Bottom.) Or, you may find in such cases that a new line drawn across the *second* and third Bottoms works better; if the first Bottom was a Reversal Day with its *closing* level well above the low of its range, you may find this new line, when extended back, strikes just about at that closing level.

If, on the other hand, the original trendline has been “tested” one or more times after it was drawn—if, that is, a third and perhaps a fourth Bottom have formed on it without penetrating it and have thus “confirmed” it—then the subsequent indecisive penetration may be disregarded and the original line considered to be still in effect.

An intraday break through an established trendline that, however, does not result in prices closing beyond the line may be disregarded and the line left as is. In fact, as has already been suggested, the closing prices frequently make a better trendline than the extreme intraday lows of successive Bottoms, which is most apt to be true with “thin” stocks subject to erratic swings. A bit of experimenting with different lines often pays. A thin, transparent ruler is especially useful for trendline study.

There is another type of price action that may require redrawing a trendline. Sometimes, after a line has been projected up across the first two Minor Bottoms in an advancing trend, a third Minor Bottom will form, not on that line, but well above it. In such cases, let the original line stand, but draw in a new one across the second and third Bottom points, and watch developments. If the rally from the third Bottom peters out quickly, and the new trendline, as a consequence, is soon broken, then the original trendline is probably the correct one. But, if the third Bottom turns out to be a “strong” one, and the new line stands up well for several weeks (and if it was not, patently, too steep to begin with), then the old line may be abandoned and the new one regarded as the better trend definer.

Double Trendlines and trend ranges

In the course of your “cutting and trying” in an effort to fit a good line to an Intermediate Uptrend, you may find that *two parallel lines*, perhaps a point or so apart in a stock selling in the 30s, will define the true trend pattern much better than any single line that can be drawn. Sharp Bottoms and shakeout thrusts in such cases will often fall along the outer or lower line, while the duller, more rounded reactions will stop at or near the upper or inner line. Or the two lines will mark off a *range* somewhere within which successive Minor Down Waves tend to halt and reverse.

Such Double Trendlines are really plentiful, although most chart technicians seem to be quite unaware of them. It pays to develop an eye for them—to watch constantly for trends to which they can be applied. They will clear up many situations in which attempts to find a single critical line lead only to frustration and to your finally giving up in disgust.

Trends that you find are best defined by Double Trendlines (or by a very Broad Trendline, if you prefer) cannot be regarded as having ended until the outer, lower line has been decisively penetrated. In that connection, note what we said at the beginning of this topic: sharp, shakeout Bottoms tend to fall on the outer line. The recoveries from such Bottoms are usually just as sharp, and prices, therefore, rally back above the upper, inner line quickly. Warning of an impending break in the trend is given when prices come down to the outer line steadily, rather than by the quick “shake” type of reaction, and then have difficulty rallying back through the inner line. Watch such developments closely. A break down may not follow; the situation may still be “saved,” but the chances are that the trend is near its end.

Trend Channels

At the start of this trend study, we applied the term Basic Trendline to the line that slopes up across the Wave *Bottoms* in an advance and to the line that slopes down across the Wave *Tops* in a decline. Furthermore, we noted the opposite Reversal Points, that is, the wave crests in an advance and the wave troughs in a decline, were, as a rule, less clearly delimited. That is one of the reasons why all of our discussion up to this point has been devoted to Basic Trendlines. Another reason is that the technician’s most urgent task is to determine when a trend has run out, and for that purpose, the Basic Line is all important.

In a fair share of normal trends, however, the Minor Waves are sufficiently regular to be defined at their other extremes by another line. That is, the *Tops* of the rallies composing an Intermediate Advance sometimes develop along a line that is approximately parallel to the Basic Trendline projected along their Bottoms. This parallel might be called the *Return Line* because it marks the zone where reactions (return moves against the prevailing trend) originate. The area between Basic Trendline and Return Line is the *Trend Channel*.

Nicely defined Trend Channels appear most often in actively traded stocks of large outstanding issue—least often in the less popular and the relatively thin equities that receive only sporadic attention from investors. The value of the Trend Channel concept for the technical trader would hardly seem to require extended comment here; its tactical utilization is discussed in the second half of this book.

Its greatest utility, however, is not what usually appeals to the beginner when he first makes its acquaintance, namely, the determination of good profit-taking levels. Experienced technicians find it more helpful in a negative sense. Thus, once a Trend Channel appears to have become well established, any failure of a rally to reach the Return Line (top parallel of the channel in an Intermediate Advance) is taken as a sign of deterioration in the trend. Furthermore, the margin by which a rally fails to reach the Return Line (before turning down) frequently equals the margin by which the Basic Trendline is penetrated by the ensuing decline before a halt or Throwback in the latter occurs.

By the same token, given an established Trend Channel, when a reaction from the Return Line fails to carry prices all the way back to the Basic Trendline but bottoms out somewhere above it, the advance from that Bottom will usually push up out of the channel on the top side (through the Return Line) by a margin approximately equal to the margin by which the reaction failed to reach the bottom of the channel (Basic Trendline).

Experimental Lines

Your experienced technician, in fact, is constantly drawing trendlines of all sorts—Minor, Intermediate, and Major—on his charts. He will first very lightly pencil them in wherever he can find an excuse to draw one. Many will quickly prove to be of no significance; those he may erase. Others will “stand out,” showing evidence of technical authority, which he will make heavier or color, as suggested later on. He will be constantly on the watch for Double Trendlines and will draw tentative Return Lines to mark off possible channels at every opportunity. As soon as he has what appears to be a Basic Up Trendline, for example projected from two Bottoms, he will go back to the Top of the rally between those two Bottoms and draw from that parallel to the Bottom Trendline. If the next rally comes up to that parallel, stops there and turns down, he has a probable Return Line and channel established.

This practice of drawing in and experimenting with every trendline, which the price action permits or suggests, is earnestly recommended to the reader of this book, particularly if the technical approach is new to him. It is the quickest way—in fact, the only way—of acquiring the experience we have stressed as essential to recognition, judgment, and utilization of trendline implications in trading.

Perhaps we should add here one “don’t” for the beginner. You will have noted we have not mentioned a line projected from a Bottom to a Top, or vice versa. Trendlines are *always* drawn across two or more Bottoms, or two or more Tops. They should *never* be drawn to cross through the price track. (Prices may cross their extensions later, but this should not have happened at the time the lines are first drawn.) If you did not know better, you might, for example, put in a line from the Top of the left shoulder to the Top of the right shoulder of a Head-and-Shoulders Formation, thus cutting through the head, but such a line would have no technical validity.

Consequences of Trendline penetration: Throwbacks

At the beginning of this chapter, we mentioned the probable consequences of a breakdown through an Intermediate Up Trendline. To repeat, if an Intermediate Up Trendline has been constructed, has qualified as technically significant by the tests previously discussed, and has then been decisively broken, the inference is the uptrend is finished. And the consequences to be expected are either a full Intermediate Recession or a period of Consolidation (usually becoming a recognizable Area Formation). Technical indications of other sorts may be seen on the chart, which will suggest which of these two consequences is the more likely. In either event, the Intermediate Trend trader will certainly look twice before attempting to find further profit in that particular situation at that time.

A more immediate but less important probable consequence of trendline penetration has also been mentioned—the “Pullback.” Pullbacks that follow breakouts from Reversal and Consolidation Formations have been described in our earlier studies of those price patterns. It is easy to understand why a rally that develops after prices break out through the lower boundary of a Rectangle, for example, will be stopped when it gets back to that boundary by the Resistance (supply) now residing there. Support-Resistance Theory enables us to rationalize most of the Throwback moves that occur after prices have broken out of other types of Reversal or Consolidation Areas. The Pullbacks that follow trendline penetrations cannot be thus rationalized; yet they occur much more frequently, and they appear to be stopped much more exactly at the old trendline level than is the case with Area Formations. Why should prices, after they have thrust down through a rising trendline,

perhaps for several points, turn back up and ascend to or very near the old trendline, stop there, and then go off in renewed decline? The Top of that Pullback Rally may be 2 or 3 points above the original penetration level, because the trendline is sloping up all the time; nevertheless, there it stops, falters, and gives up. No one knows why supply should overcome demand or why Resistance should be so plainly evident at that particular point whose level is determined by *two* variants—the *slope* of the line and the *time* it is reached.

You cannot reasonably expect a Pullback Rally to climb all the way back to a trendline that is ascending at a very steep angle, which may mean the attainment of a new high price for the entire Intermediate Uptrend; yet even that happens in more than just a few cases. What can be counted on in the great majority of typical Up Trendlines (those that slant up at a normal or fairly flat angle) is that after the line has been broken, a Pullback Rally will develop, either in a few days or in the usual Minor Wave tempo and will carry prices back up to the projected trendline.

Throwbacks do not occur, it should be noted, when prices erupt through a *Return Line*, that is, break out of the top side of an Uptrend Channel. Or, more correctly stated, the Return Line does not function as a Support against a Throwback after prices have gone through it. An unusually strong upswing in a Rising Trend Channel may carry beyond the top of the Channel as defined by its Return Line, but the next reaction may go right back down through it without evidencing any hesitation at its level.

The Throwback is one of the mysteries in trendline price action to which we alluded at the outset. The technical analyst who studies trends and trendlines over any considerable period will discover many other even more mysterious phenomena that cannot find space in this treatise, as no way has yet been found to put them to practical use in trading and investing. They are extraordinarily interesting in retrospect, but they are not subject to forecast.

Intermediate Downtrends

In all of the foregoing discussion of trends and trendlines, we have concentrated on *uptrends*; we have, in fact, had in mind specifically Intermediate Advances in the direction of the Primary Trend, that is, within a Major Bull Market. Those particular trends are most apt to develop “normally” and are most amenable to trendline definition. Intermediate *Down Moves* in a Major Bear Market may well be taken up next. Before discussing the respects in which they differ from Primary Advances, recall that the *Basic Trendline* on a down-move is the line projected across the *Tops* of the rallies within it. The Trend Channel will be to the left of that trendline and below it on the chart. The *Return Line* (if any) will define the *Bottom* of the channel.

Intermediate (Bear Market) Downtrends are far less regular and uniform in their development than Bull Market Advances. Their angles of decline are characteristically steeper, and this is particularly true, of course, of the Panic Moves typical of the second phase of a Bear Market, as in our discussion of Major Trends in [Chapter 3](#). Moreover, prices have a tendency to drop away from any trendline drawn across the first two Rally Tops; in other words, to curve down or accelerate as the move proceeds. This shows plainly on an arithmetically scaled chart and even more conspicuously on a semilogarithmic sheet.

The *practical* results of this down-curving tendency are not so important, insofar as it delays the penetration of the original trendline and, hence, the giving of a signal of trend change. The fact is prices tend to thrash around for some time, making a base at the Bottom of one of these precipitous declines. In so doing, they work out sideways on the chart and the trend frequently does not turn up visibly until after the trendline has finally been

reached and broken through on the upside after all. Thus, there is justification for drawing down trendlines and keeping them in view even though they may seem, for some time, simply to travel off into space with no apparent relevance to the actual trend of prices.

It naturally follows from the above that Return Lines on most Bear Market Declines have little practical utility; they are, more often than not, very quickly broken downside. Good channels are hard to find.

However, and this is of considerable practical importance, the very last Intermediate Downswing in a Major Bear Market is the last Primary Move that leads to the final, long-term Bottom, which is usually cleaner, more regular, and less precipitous—in other words, it is a more nearly normal trend of the sort we expect to find in most Intermediate Advances in a Bull Market (except that it slants down instead of up). This interesting habit is, as we said, of practical importance. Knowing it, we have an additional and very useful clue to the end of a Bear Market.

When, after a Major Bear Trend has proceeded for some time and distance, and has experienced at least one Panic Sell-Off, it then goes off in another but less active and more orderly decline, and this decline develops and follows a good trendline. Watch it closely though. If this Intermediate holds to its steady and not-too-steep downward course—if its trendline is contacted several times by Minor Rallies or it produces a fairly consistent channel and prices do not “fall out of bed” down through its parallel Return Line, then the eventual upside penetration of this trendline may well signal a *Major Turn*, that is, the inception of a new Bull Market.

Corrective trends: the Fan Principle

In this study of Intermediate Trendlines, we have left to be taken up last the subject of Secondary or Corrective Trends. These are the Intermediate Declines that interrupt the Primary Advances in a Bull Market, and the Intermediate Recoveries that alternate with Primary Declines in Bear Markets.

Intermediate Reactions against the Major Direction of the market take a variety of forms. Sometimes, as we have seen in our earlier study of chart patterns, they run out into Consolidation Formations—Triangles, Rectangles, and so on—in which the net price reaction is of minor consequence, but time is consumed in backing and filling before the Primary Trend can be resumed. In such cases, there is no basis for drawing an Intermediate Trendline, nor is one needed for any practical purpose.

At the other extreme, so to speak, we find Corrective Swings that develop as a more or less orderly straight-line return of moderate slope to the nearest good Intermediate Support or Resistance Level, retracing perhaps a third to a half of the preceding Primary Swing. These reactions produce good trendlines, as a rule, and the eventual penetration of their trendlines is a good technical signal of Reversal. Intermediate Corrections clearly of this type are relatively rare.

A third form taken by Intermediate Corrections is nearly as common as the first named above (Consolidation Pattern) and much more common on the charts than the second. In a Bull Market, it starts with a sharp reaction that proceeds for several days—perhaps for as much as two weeks—producing a steep Minor Trendline. This line is broken upside by a quick Minor Rally, after which prices slide off again in a duller and less precipitate trend. A second Minor Trendline may now be drawn from the original high point across the Top of the upthrust that broke the first trend. This second trendline is broken by another partial recovery thrust, and a third and still duller and flatter sell-off ensues. A third trendline can now be drawn from the original high across the Top of the second upthrust. The whole

move, by this time, has taken roughly and irregularly a “Saucering-out” form. The three trendlines drawn from the original Reversal points from which the Corrective Decline started, each at a flatter angle than its predecessor, are known as *Fan Lines*. The rule is when the *third* Fan Line is broken upside, the low of the Intermediate Correction has been seen.

There are exceptions to this rule—as there are to every so-called rule of technical chart analysis. Rarely, a correction of this type will go on to make another dip to a new low for the whole corrective move before prices really start to round up again. But the Three-Fan Principle works in the great majority of cases. Moreover, it offers the trader an opportunity to take a position at a point at which he can logically employ a very near stop order and, thus, limit his loss to a controlled amount if the rule does not work out.

It is interesting to note that prices consistently throw back in these movements to the preceding Fan Line after each upthrust. The new Primary Swing, once the low has been passed, usually starts slowly and carries out for a time the Saucer picture.

The Three-Fan Rule works just as well in calling the turn on Intermediate Recoveries in a Bear Market, the majority of which take the rounding form that is adapted to its use. Note, however, that the Fan Principle is normally applied only to corrective moves, that is, to determine the end of Intermediate Reactions in a Bull Market and the end of Intermediate Recoveries in a Bear Market.

Major Trendlines will be outlined in the following chapter, but before we leave this study of Intermediate Trends, it will be well to state again that the practical application of trendlines in actual trading requires experience and the good judgment to be attained only therefrom. Some technical analysts depend largely on trendline studies, few attempt to use trendlines almost exclusively, but the majority have found they are best employed as an adjunct to other technical data.

Technical analysis of a stock chart is something like putting together a jigsaw puzzle. There are many items to be considered, among them volume, pattern, and the measurements derived therefrom, Support and Resistance Levels, trendlines, and general market prospects—and all fit into place to get the complete picture.



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Major Trendlines

In the preceding chapter on Intermediate Trendlines, mention was made of the distinctive effects produced by arithmetic and semilogarithmic plotting, but it was noted that these differences were unimportant in connection with Minor Trends or Intermediate Trends of average duration. When we come to Major Trends, however, we find the difference does become important. Major Trendlines are illustrated by [Figures 15.1](#) through [15.20](#).

If you will examine a large collection of arithmetically scaled monthly charts covering 10 years or more of market history, you will quickly see that Bull Trends, in the great majority of actively traded, more or less speculative common stocks, tend to *accelerate*. They start slowly and push up at a steeper and steeper angle as they approach a Major Top. This up-curving path takes them farther and farther away from any straight trendline drawn from two Bottom points in the first, slow-moving stage of advance. As a consequence, they top out and have gone down a long way in a recession that may be of Major consequence before their straight trendline is again touched.

Many of the stocks that show such typical *accelerating* curves in their advance (Major) Trends on arithmetic paper produce *straight* trends on a logarithmic scale. As a consequence, their logarithmic Major Trendlines are broken more quickly, and usually at a higher price level, when at last their trends do top out and turn down. In the case of such stocks, then, the logarithmic scale gives a better trend signal.

But there are other stocks—mostly of the more substantial investment or semi-investment type—that tend to advance in straight arithmetic trends. Consolidated Edison, General Motors, and Libbey–Owens–Ford Glass are examples. (The trends of these on a logarithmic scale show a decelerating curve.) Still a third class, made up largely of high-grade preferred stocks, produces a rounding over or decelerating Bull Trendline even on the arithmetic scale. And, finally, there are a number of issues whose normal Bull Market Trendlines fall somewhere between our first two types—that is, they curve up away from a straight path on the arithmetic scale, but curve over to the right (breaking through a straight line) on the logarithmic scale. (EN: *Fortunately, in this age of computers and easily processed data, there is analytical software that allows the analyst to instantaneously switch between the scales. Desktop packages are available[see Appendix B, Resources] and a number of internet sites have these capabilities.*)

All of which, the reader, at this point, no doubt finds most discouraging. Some stocks do this and some stocks do that, but what help is there for us in such a mix-up? The answer lies in studying the history of each issue in which you may be interested. Most stocks do not change their habits and their technical characteristics much from one Bull and Bear cycle to the next. An issue, like General Motors, that produces a straight-line Bull Trend on an arithmetic chart in one Primary Upswing is likely to repeat that performance in the next. EN10: *GM after the fall will, we suspect, retain its previous habits, but that remains to be seen.*

As a matter of interest, stocks do sometimes change over a long period of years. Companies that were regarded as extremely speculative when their shares were first listed

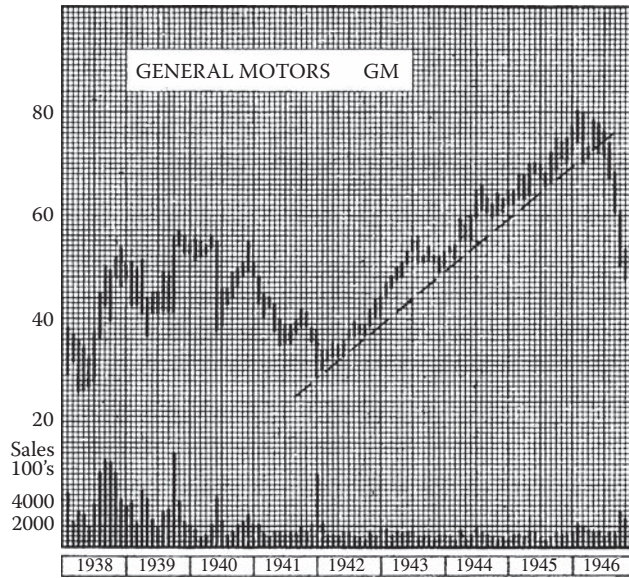


Figure 15.1 The straight-line Bull Market Trend of General Motors on an arithmetic monthly chart: 1941 low, 28 5/8; 1946 high, 80 3/8.

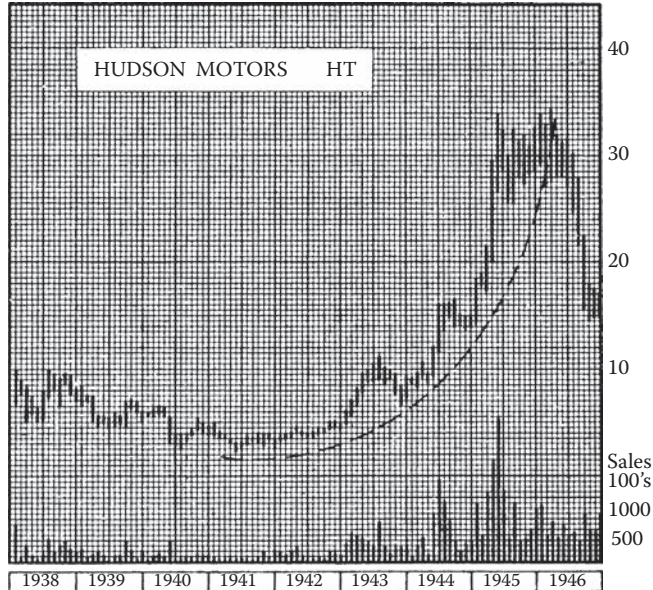


Figure 15.2 The up-curving trend of a speculative motors stock, Hudson Motors. Compare this with "GM": 1941 low, 2 5/8; 1946 high, 34.

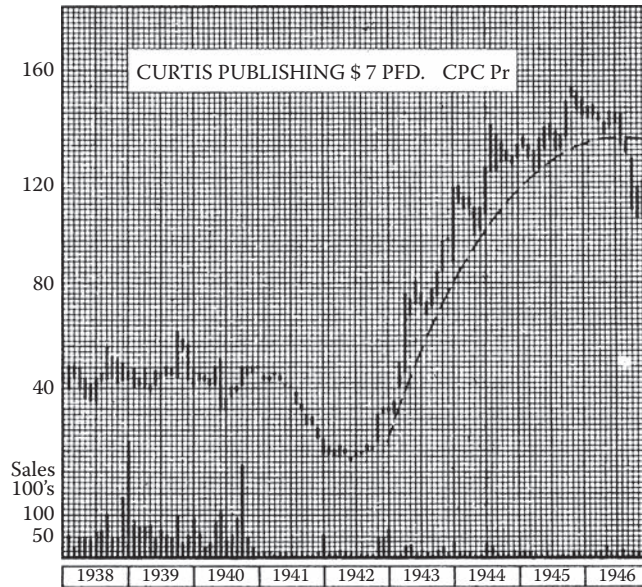


Figure 15.3 Typical decurving Major Bull Trend of a high-grade preferred stock. This is Curtis Publishing \$7.00 Preferred: 1942 low, 12; 1945 high, 154.

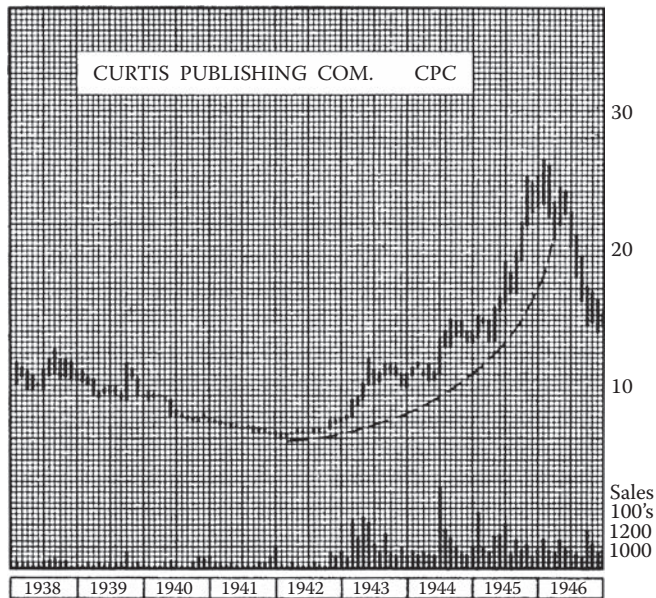


Figure 15.4 The accelerating uptrend of the common stock of the same publishing company: 1942 low, 3/8; 1946 high, 26.

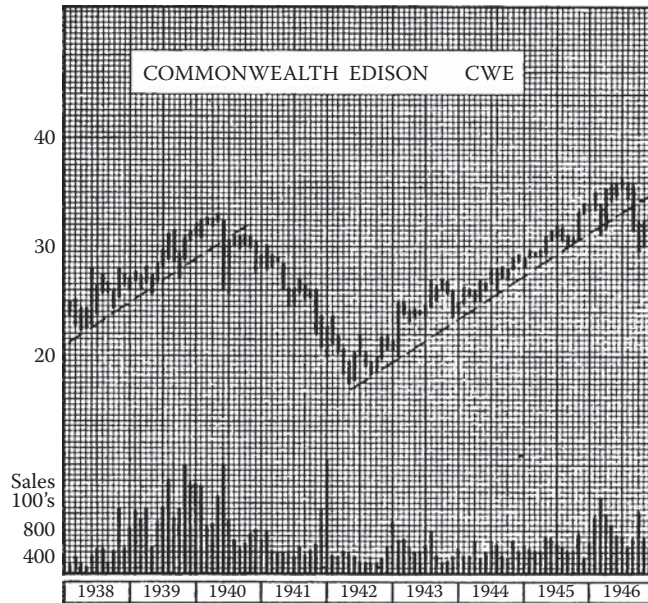


Figure 15.5 A conservative investment-type utility stock makes a straight-line Major Bull Trend. This is Commonwealth Edison: 1942 low, $17 \frac{3}{8}$; 1946 high, $36 \frac{1}{8}$. Leverage is an important factor in trends.

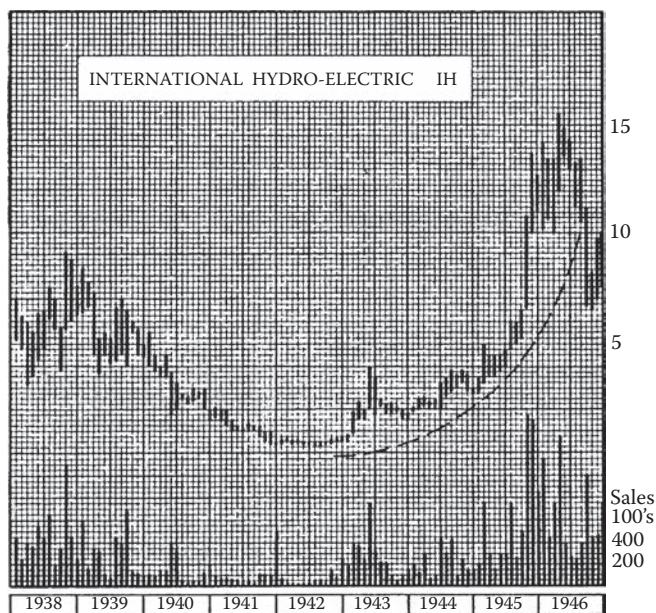


Figure 15.6 The up-curving trend of a low-priced "junior" utility, International Hydro-Electric: 1942 low, $1 \frac{1}{4}$; 1946 high, $15 \frac{1}{2}$.

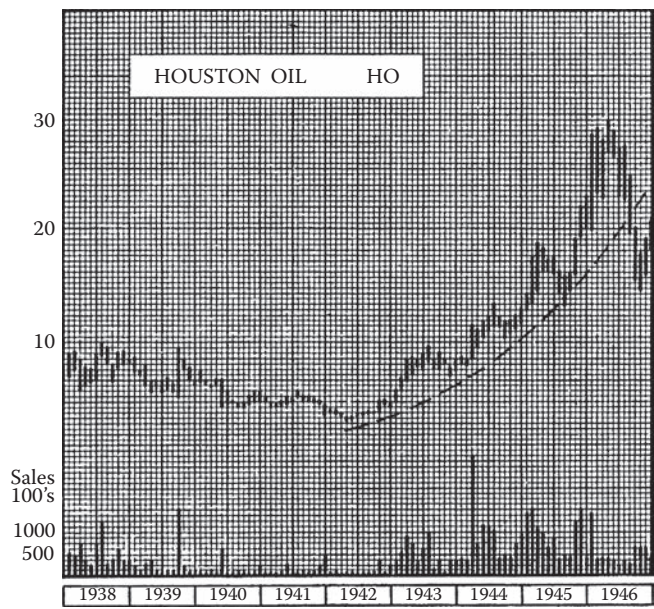


Figure 15.7 A speculative oil stock, Houston Oil: 1942 low, 2 1/4; 1946 high, 30. Compare this picture with “SOH” in Figure 5.8.

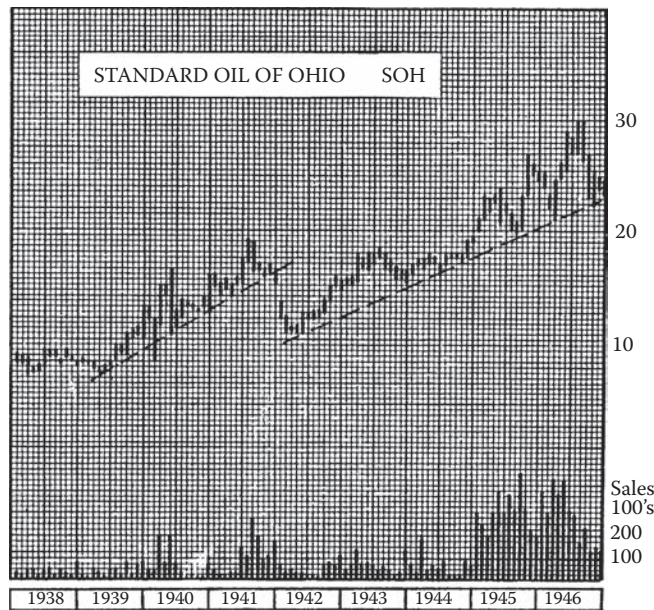


Figure 15.8 Straight-line uptrends in an investment oil, Standard Oil of Ohio: 1942 low, 10 1/8; 1946 high, 30. Note: trendline unbroken until 1948.

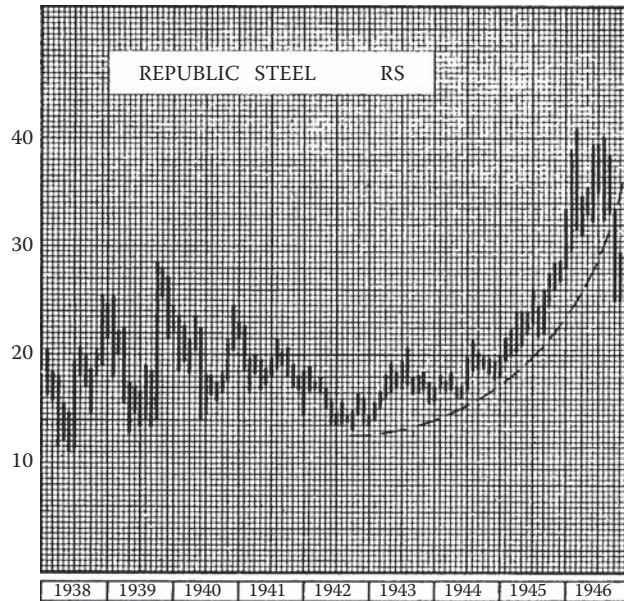


Figure 15.9 Steel stocks have the speculative or accelerating type of Primary Uptrend, Republic Steel: 1942 low, 13 3/8; 1946 high, 40 7/8.

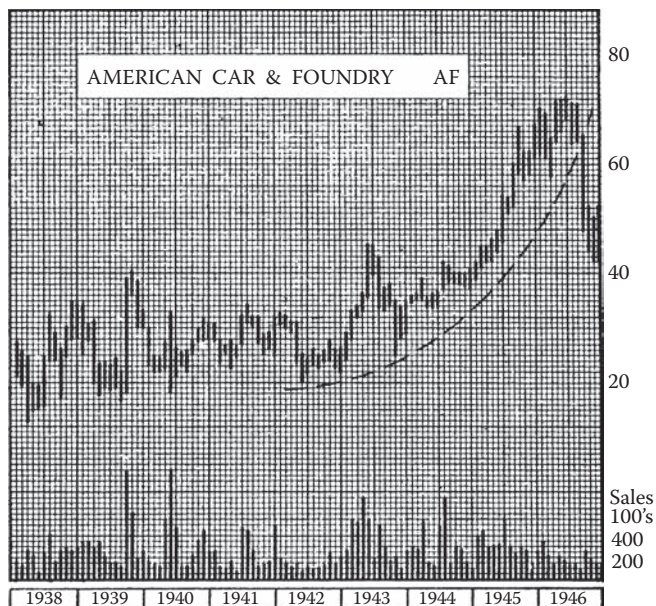


Figure 15.10 The normal Major Bull Trend of heavy industrial issues is up-curving, American Car & Foundry: 1942 low, 20; 1946 high, 72 3/8.

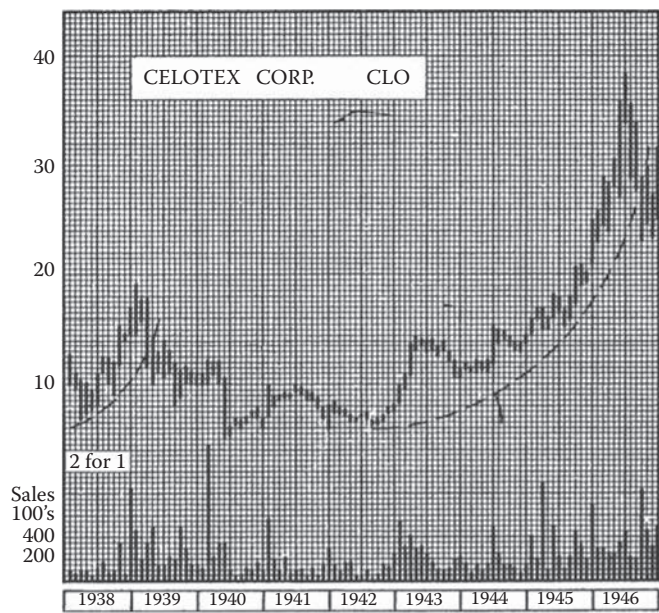


Figure 15.11 A low-priced building stock, Celotex Corporation: 1942 low, 6 1/8; 1946 high, 38 1/8.

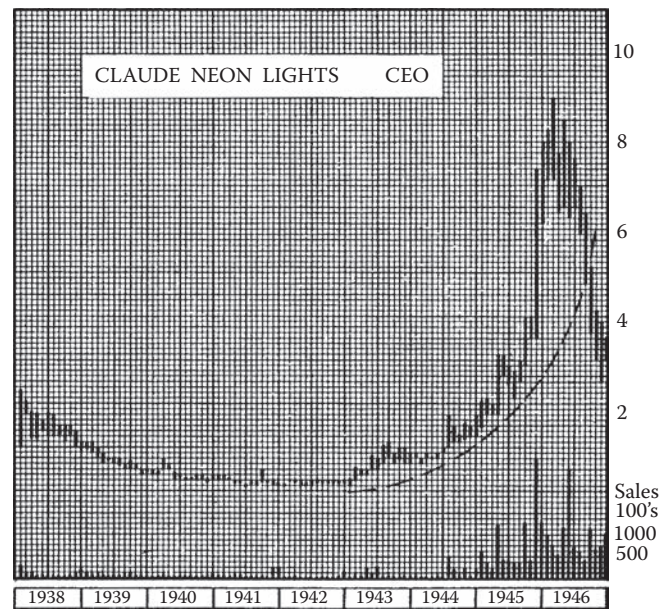


Figure 15.12 A highly speculative, low-priced issue, traded on the Curb Exchange, Claude Neon Lights: 1942 low, 1/8; 1946 high, 9.

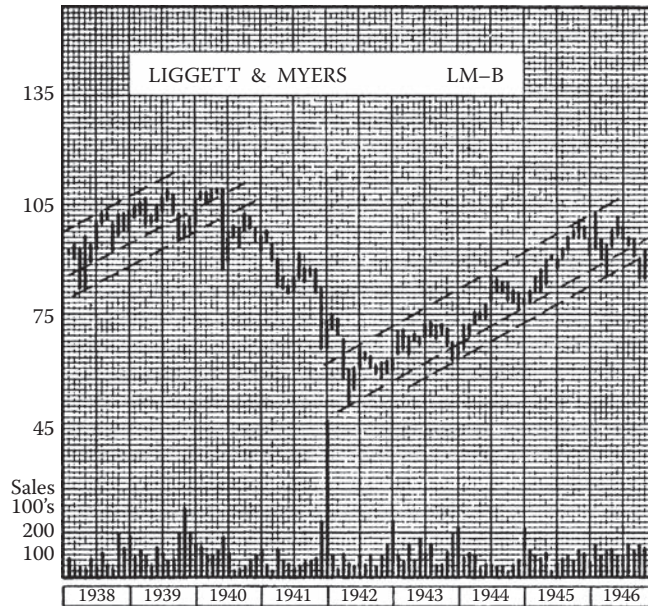


Figure 15.13 The tobacco stocks follow the investment type of trend. This is Liggett & Myers: 1942 low, 50 1/2; 1946 high, 103 1/2. Note the Double Trendline.

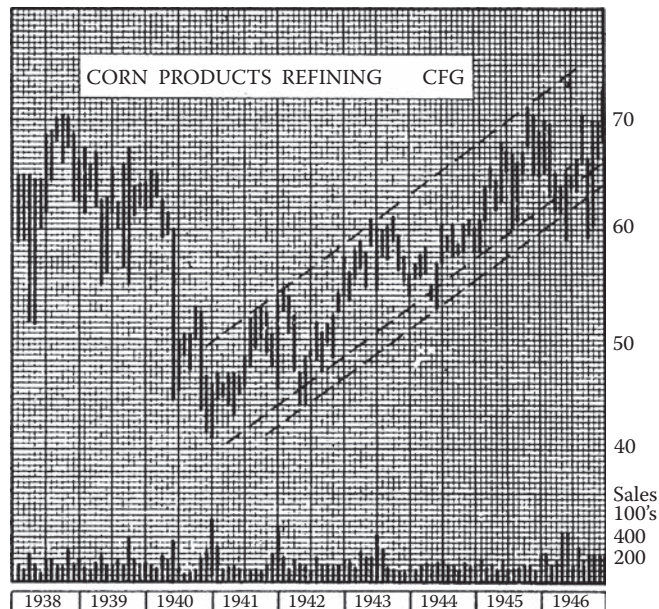


Figure 15.14 High-grade food issues (Corn Products Refining) resemble the tobaccos: 1940 low, 40 1/4; 1946 high, 75 3/4.

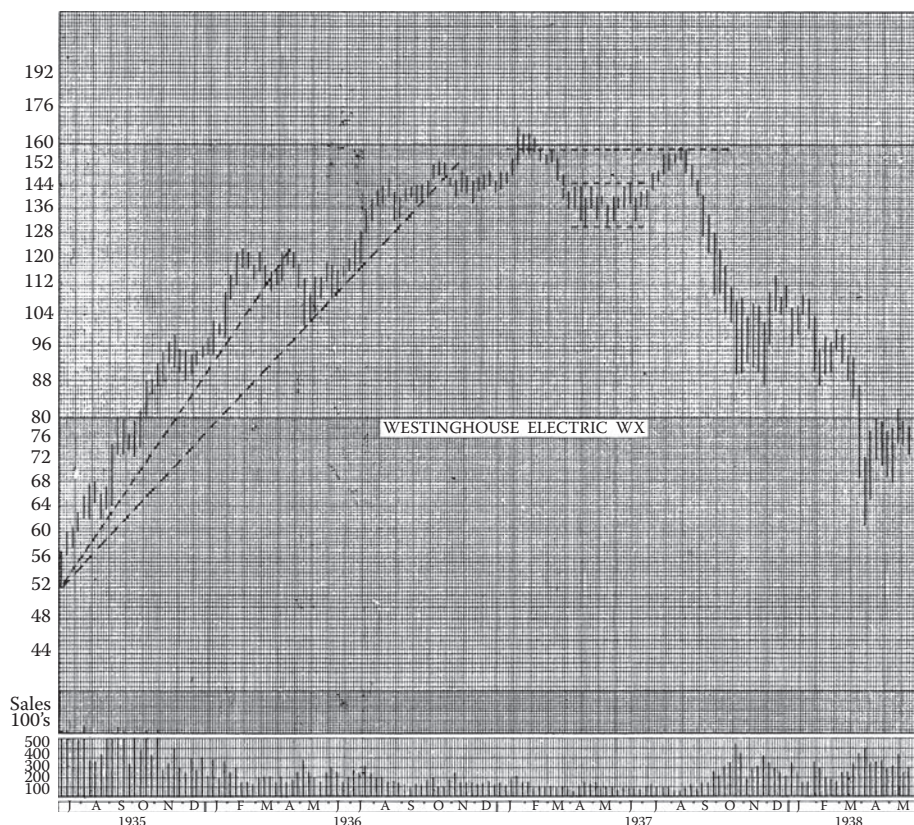


Figure 15.15 In the process of “pulling back” to a very steep Up Trendline, prices may easily go to a new high. Note the Pullback of August 1936 in this weekly chart of Westinghouse Electric. The second, less steep line turned out to be the true Major Bull Trend. Note that the February–April price pattern in 1936 could not be considered a true Double Top Reversal of Primary import because the recession between the two highs was only about 10% of the Top’s value (around 122). [Figure 8.21](#) shows on a daily chart the final Top Reversal Formation that “WX” made in 1937.

may attain an increasingly important and stable position in the general economy, with the result that, eventually, their stock acquires a solid investment rating. Their Bull Market Trends will then gradually change from an up-curve to a straight line and, finally, to a decelerating curve. Other old, established corporations may lose position and rating, as well as shift from the investment type of trendline to the speculative. But, it is true in general, that Major Patterns do repeat.

If you are keeping your own set of manual monthly charts, you can choose whichever scale you please. But most technical chart followers prefer to buy their long-range pictures readymade, thereby getting a much more extensive history of many more issues than they could hope to chart themselves. Since the only comprehensive portfolios of monthly charts that are available at reasonable cost are arithmetically scaled, you will possibly have to make these serve all purposes. (*EN: No longer necessary because of the availability of good software and internet chart sites. See Appendix B, Resources.*) You will find with a little experimentation that an architect’s French curve can be used to plot good Major Uptrend Lines on many of the issues whose normal Bull Trends accelerate away from a straight line.

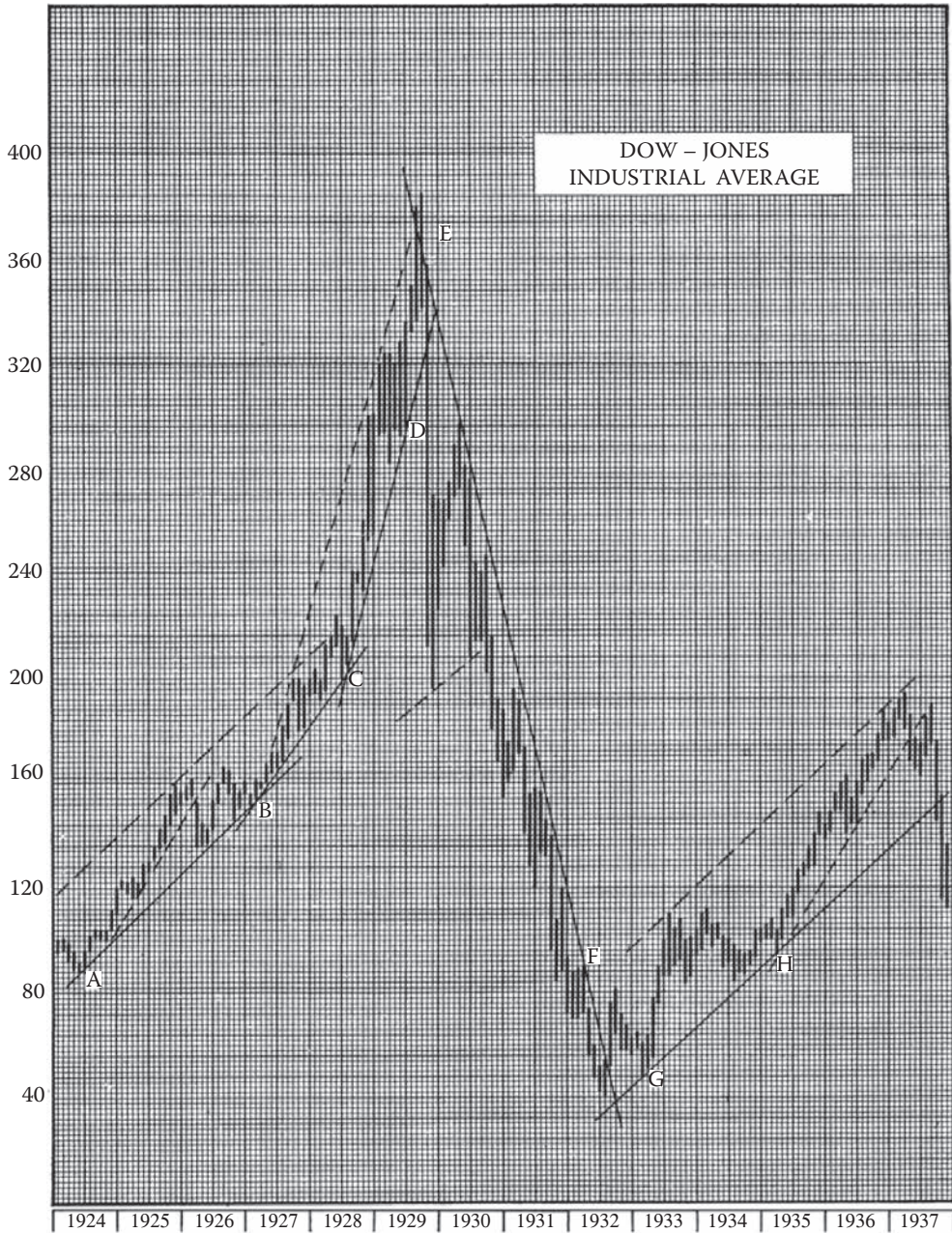


Figure 15.16 The 1929–1932 Primary Bear Market was the only one in all stock market records that produced a Straight-Line Major Downtrend. Trace also the Support and Resistance Levels throughout this 14-year history of the Dow Industrials. Each rally in the great Bear Move stopped at or near a previous Bottom level. Each decline stopped near the level of a Congestion in the 1924–1929 Bull Market. See also the level of 1937 Top. (Source: Chart courtesy of Market Research, Inc., at <http://www.barchart.com>.)



Figure 15.17 S&P Reagan Crash. As can be clearly seen, this crash sent numerous signals, starting with the breaking of a Major Trendline by more than 2% in late August. Once this occurs extreme caution and watchfulness must be exercised. The darker and darker complexion of things is brought out by the “smart selling,” which shows many “downthrust days” toward the end (October 10–20). The April trendline breaks (by more than 2%) would have ejected the trend trader also to be put back long in June. Observance of the 2%–3% trendline-break rule or use of Basing Points and progressive stops (see [Chapters 27](#) and [28](#)) would have avoided much needless grief.



Figure 15.18 S&P Long-Term Perspective. Viewed from afar it seems an exercise in futility to attempt to “time the market.” One must keep in perspective the crashes in market prices are timed to coincide with personal and business needs for short-term liquidity, or cash. One must also remember the market behavior from 1965–1982, as well as the table of Dow Theory Performance from [Chapter 4](#) ([Table 4.2](#)).

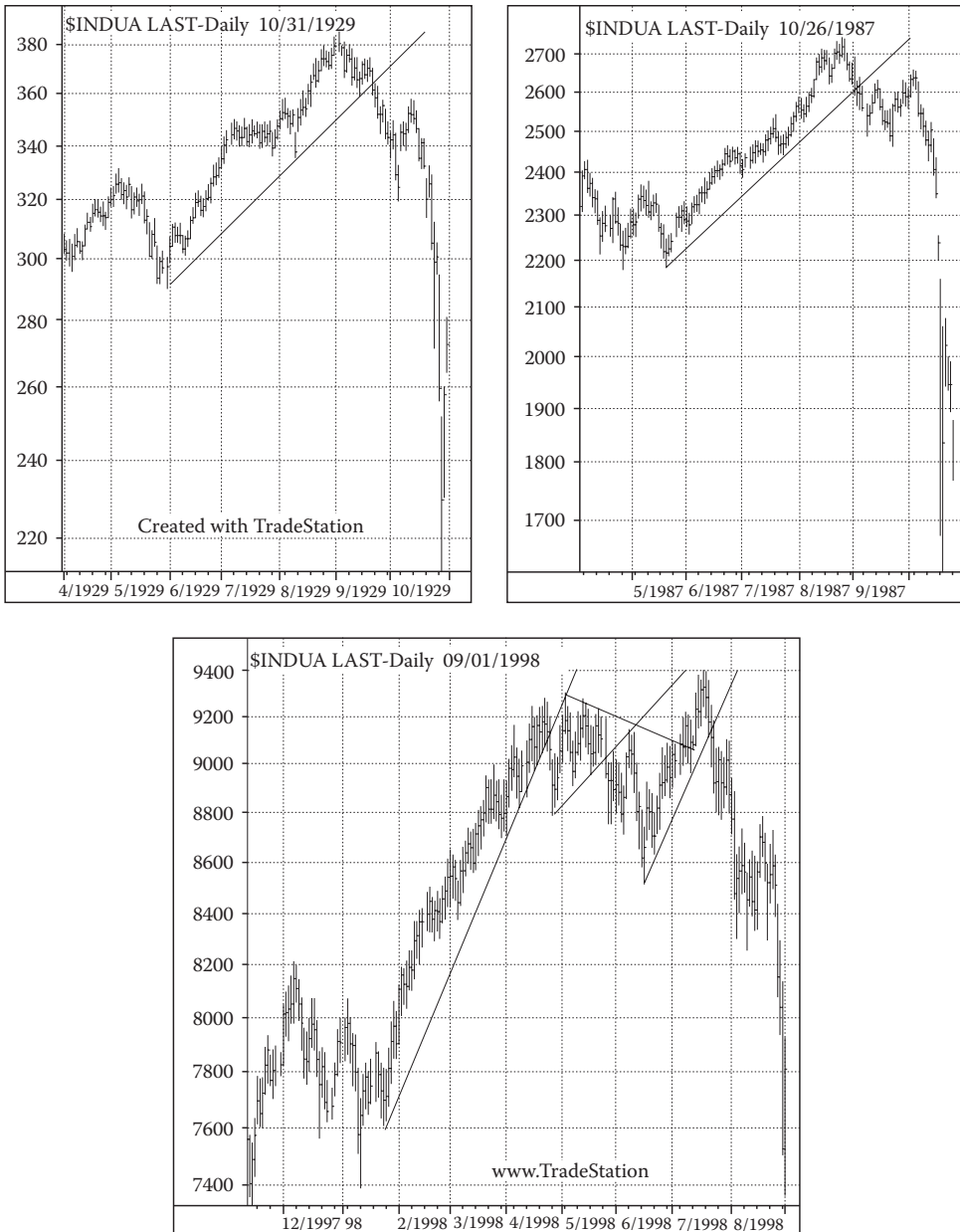


Figure 15.19 Three Bull Market Tops, 1929, 1987, 1998. Notice here that in each case the crash occurred after the nearest important trendline had been decisively broken—usually trendlines of approximately three months by 2% or more, and sometimes accompanied by reversal formations. All historic tops will show evidence of attempts to resume the trend after a break of this kind. Belief dies hard. Nonetheless, hedging or exiting on these trend breaks proves to be the best strategy over and over again.

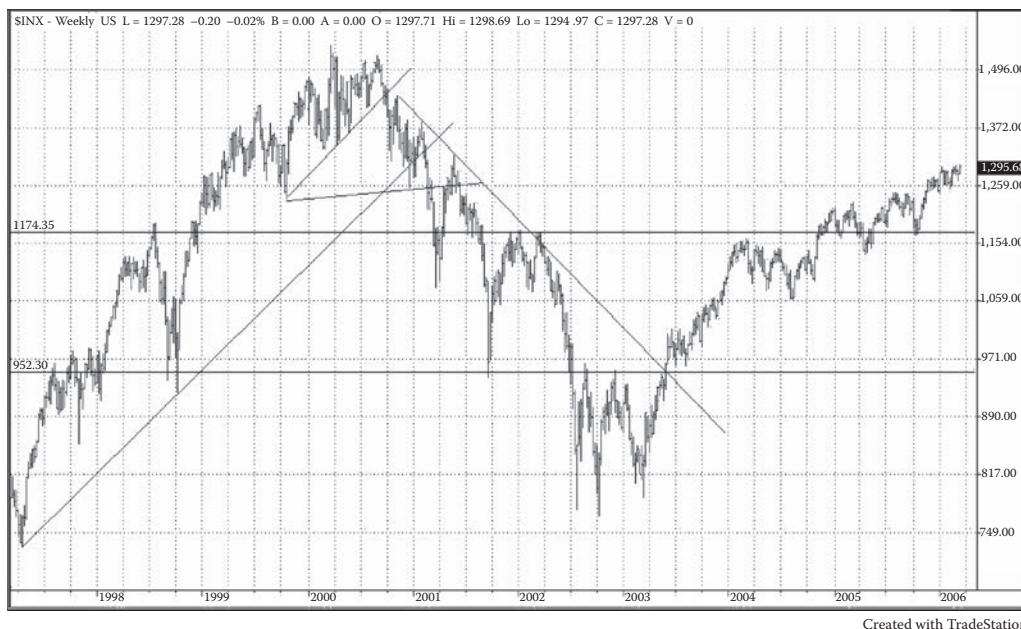


Figure 15.20 The Bull 1990s top in the S&P gave much clearer readings than the Dow top, with the broken trendlines being paramount. But while the Dow flirted with the emotions of Bulls who *wanted to believe* in the Dow 36,000, the S&P broke its trendlines and went south for the winter, a potentially very long winter. This might have started off as a rounding top and then became a complex-complex top, and you can even see traces of a Head-and-Shoulders top in it. It is the editor's opinion we may never see such unruly tops again in this generation. The pent-up greed, lust, and naiveté as even the bootblacks (they still have those don't they?) rushed to get the latest tulip bulbs. Tulips are like century plants; they only bloom once each hundred years. A little old lady with a ruler could have saved her portfolio here. All it takes is not believing the hype (Dow 36,000 indeed!) and making an unemotional analysis and honoring the stops.

The tests for the technical significance of a Major Trendline are substantially the same as those specified for Intermediate Lines in the preceding chapter. A little more leeway must be allowed on penetrations—again, a matter of judgment—but you are dealing with coarse data and long swings here, and what you want from your monthly charts, primarily, is perspective on the broad picture.

One more point regarding the construction of Major Bull Trendlines: the best lines—the most useful—are drawn, as a rule, not from the absolute low of the preceding Bear Market but starting from the next Intermediate Bottom. The accumulation area at the beginning of a Bull Market is usually long and drawn out in time and relatively flat. The first trendline that can be drawn from the extreme low point may, therefore, be too nearly horizontal to express the genuine Bull Trend that starts with the markup phase. The several charts showing Major Trendlines that illustrate this chapter will demonstrate this point (*EN: Especially Figure 15.14*). It applies as well to many Intermediate Moves that start from Area Formations. Take the Head-and-Shoulders Pattern, for example: the true Intermediate Trendline usually starts from the right shoulder rather than from the head.

Major Downtrends

From the technical analyst's point of view, it is regrettable that few Bear Markets have produced Major Trendlines of any practical significance on the charts of individual stocks. A notable exception was the long Bear Market of 1929–1932, which produced magnificently straight trendlines on the arithmetic plotting of a host of issues (as well as in the Averages, to which we shall refer later). But it is almost impossible to find other instances in which a Bear Trendline having any forecasting value can be drawn on either arithmetic or semilogarithmic scale.

The *normal* Major Bear Market Trend is not only steeper than the normal Bull Trend (because Bear Markets last, on the average, only about half as long as Bull Markets), but it is also accelerating or down-curving in its course. This feature is accentuated and, hence, particularly difficult to project effectively on the semilogarithmic scale.

The technician cannot expect to obtain much in the net of it, help from his *Major* Trendlines in determining the change from a *Primary Downswing* to a *Primary Upswing*. This should not be taken, however, as advice to not draw trendlines on a Major Down Move, or to disregard entirely any trendlines that may develop with some appearance of authority. If you do not expect too much of them, they may, nevertheless, afford some useful clue as to the way in which conditions are tending to change.

The student of stock market action who is not altogether concerned with dollars and cents results from his researches will find Bear Market Trendlines a fascinating field of inquiry. They do some strange things even though they fail in the practical function of calling the actual Major Turn and go shooting off into space, they sometimes produce curious reactions (or, at least, appear to produce what would be otherwise inexplicable market action) when the real price trend catches up with them months or years later. But such effects, interesting as they may be, are, in our present state of knowledge, uncertain and unpredictable. (*EN: This fact may persist into the mists of the future and be thought of like Fermat's Last Theorem. Our present state of knowledge in the twenty-first century is no further advanced than it was in Magee's time.*)

We must dismiss this rather unfruitful topic with the reminder that one clue to the end of a Primary Bear Market is afforded by the Intermediate Trendline of its final phase, which we cited in the preceding chapter.

Major Trend Channels

Another difficulty is met when trying to draw Return Lines and construct channels for Major Trends on an arithmetic chart. Owing to the marked tendency for prices to fluctuate in ever-wider swings (both Intermediate and Minor) as they work upward in a Primary Bull Market, their channel grows progressively broader. The Return Line does not run parallel to the Basic Trendline (assuming there is a good Basic Trendline to begin with) but diverges from it. Occasionally, a stock produces a clear-cut Major Channel Pattern, but the majority do not.

A large Rectangle base was made on this weekly chart in April, May, and June 1937, but observe the poor volume that accompanied the breakout and rise from that formation—an extremely Bearish indication for the Major Trend. The “measurement” of the Rectangle was carried out by August, but that was all.

As is usually the case, it was impossible to draw a Major Down Trendline that had any forecasting value on this chart. The beautiful straight trendlines that appeared in the 1929–1932 Primary Bear Market led many chart students to expect similar developments in every Bear Market, but the fact is that 1929–1932 was unique in that respect.

Semilogarithmic scaling will correct, in many cases, for the Widening Channel effect in Bull Trends, but then we run into the opposite tendency in Primary Bear Markets, and for that, neither type of scaling will compensate.

Trendlines in the Averages

Practically everything stated in the preceding chapter regarding Intermediate Trendline development in individual stocks applies, as well, to the various Averages. The broad Averages or Indexes, in fact, produce more regular trends and, in consequence, more exactly applicable trendlines. This may be partly due to the fact most Averages are composed of active, well-publicized, and widely owned issues whose market action individually is “normal” in the technical sense. Another reason is the process of averaging smooths out the vagaries of component stocks, and the result more truly reflects the deep and relatively steady economic trends and tides.

In any event, it is a fact that such averages as the Dow–Jones Rails, Industrials, and 65-Stock Composite, *The New York Times* 50, and Standard & Poor’s Average of 90 stocks (the last two named being probably the most scientifically composed to typify the entire broad market) do propagate excellent trendlines on their charts. (EN: As the reader will note, most of these indices are obsolete. In the modern age, the S&P 500 probably best fulfills this function.)

The very accuracy of their trends, particularly their Intermediate Moves, permits us to construe their trendlines more tightly. Less leeway need be allowed for doubtful penetrations. Thus, although we ask for a 3% penetration in the case of an individual stock of medium range, 2% is ample in the Averages to give a dependable break signal.

Experienced traders know it pays to heed the Broad Market Trend. It is still easier to swim with the tide than against it.

EN: *Trendlines in the Averages and Trading in the Averages*

Numerous averages and indexes have come online since the fifth edition, including the S&P 100, S&P 500, Russell 2000, and so on. It would be an exercise in daily journalism to attempt to list all the indexes now available, as new ones spring up like weeds after the spring rain. This is because the invention of a widely adopted index can be very lucrative for its creator. S&P and Dow–Jones collect licensing fees from the “use” of their indexes by the exchanges. The constant addition of new trading instruments requires that current lists be kept in Resources, and the reader may also consult the Wall Street Journal, Barron’s, and the Investor’s Business Daily where prices of indexes and averages are reported. Online brokerages and financial news sites also offer up-to-the-minute lists and quotes on virtually all trading instruments. A list and links to these sites may also be found in Appendix B, Resources, and at <http://www.edwards-magee.com>.

As of the turn of the century, the most important of these indexes joining the Dow are probably the S&P 500, the S&P 100, and the NASDAQ. In fact, these are probably sufficient for economic analysis and forecasting purposes, and certainly good trading vehicles by means of surrogate instruments, options, and futures. Some would include the Russell 2000 in this list. These indexes and averages have been created to fill needs not addressed adequately by the Dow–Jones Averages.

With this proliferation of measures of the market and various parts of it, a different question arises questioning the value of the Dow alone in indicating the Broad Market Trend. Limited research has been done on this question; however, my opinion is the Broad Market Trend must now be determined by examining the Dow Industrials, the S&P 500, and the NASDAQ Composite.

Trading the Averages in the 21st century

As pointed out in other new chapters and notes in the eighth edition, the ability to trade the Averages instead of individual stocks is a powerful choice offered by modern markets. The index ETFs offer ideal vehicles for investing: The DIA, SPY, QQQ and IWM give the modern investor unparalleled flexibility and convenience. Magee was of the opinion that the Averages offered technical smoothness often lacking in individual issues. This would seem to be true intuitively. After all, just as a moving average smooths data, the average of a basket of stocks should dampen price volatility. Of course, as Mandelbrot pointed out, in a 10-sigma market storm everything sinks.

Illustrated in this chapter are several detailed cases following Magee's suggestion of Average trading. I attempt to demonstrate here two perspectives: one, the horror of the immediate, what the crash and panic look like as they occur; and two, what the crash and panic look like in retrospect. We all live in the present, except for the great billionaires who can afford to doze through horrific Bear Markets. Bill Gates' net worth varied by \$16 billion or \$17 billion in early 2000. This would put the ordinary investor out of business.

So the ordinary investor, you and I, have to respect the great yawning Bear Market. We must step to the sidelines and let the bear eat the foolish virgins, to borrow a Biblical metaphor.

You will remember Magee opined that a trendline break of 2% was sufficient to cause liquidation of longs when analyzing the Averages. In the accompanying figures, this hypothesis is examined.

EN9: In respect to the breaking of trendlines (by 2% or 3%), I should note the breaking of a trendline is as much a warning as a signal to act. The break, instead of a change of trend to the reverse, may indicate a change of trend to the sideways—into a reversal or continuation pattern.

chapter sixteen

Technical analysis of commodity charts

(EN9: Following the practice of allowing the reader to discriminate between the work of Edwards and Magee and that of the editor, a section on commodity trading, [Chapter 16](#), has been added to the ninth edition. See *same*.)

A little thought suggests the variously interesting and significant patterns we have examined in the foregoing chapters on stock charts should logically appear as well in the charts of any other equities and commodities that are freely, constantly, and actively bought and sold on organized public exchanges. In general, this is true. The price trends of anything for which market value is determined solely (or for all practical purposes within very wide limits) by the free interplay of supply and demand will, when graphically projected, show the same pictorial phenomena of rise and fall, accumulation and distribution, congestion, consolidation, and reversal that we have seen in stock market trends. Speculative aims and speculators' psychology are the same whether the goods dealt in are corporate shares or contracts for the future delivery of cotton bales. (For illustrations in this chapter, see [Figures 16.1 through 16.13](#).)

It should be possible in theory, therefore, to apply our principles of technical analysis to any of the active commodity futures (wheat, corn, oats, cotton, cocoa, hides, eggs, etc.) for which accurate daily price and volume data are published. It should be, that is, if proper allowance is made for the intrinsic differences between commodity futures contracts and stocks and bonds.

In previous editions of this book (*EN9: up to the eighth*), traders who cast longing eyes on the big, quick profits apparently available in wheat, for example, were warned that commodity charts were "of very little help," as of 1947.

It was pointed out that successful technical analysis of commodity futures charts had been possible up to about 1941 or 1942, but the domination of these markets thereafter by government regulations, loans, and purchases completely subject to the changing (and often conflicting) policies and acts of the several governmental agencies concerned with grains and other commodities had seriously distorted the normal evaluative machinery of the market. At that time, radical reversals of trend could and did happen overnight without any warning so far as the action of the market could show. The ordinary and orderly fluctuations in supply-demand balance, which create significant definite patterns for the technician to read, did not exist. Yet, while fortunes were made (and lost) in wheat, corn, and cotton futures during the World War II period, it is safe to say they were not made from the charts.

During the past five or six years, however, the application of technical methods to commodity trading has been reexamined. Under 1956 conditions, it appears that charts can be a most valuable tool for the commodity trader. The effects of present government regulation have apparently resulted in "more orderly" markets without destroying their evaluative function. Allowing for the various essential differences between commodities and stocks, the basic technical methods can be applied.

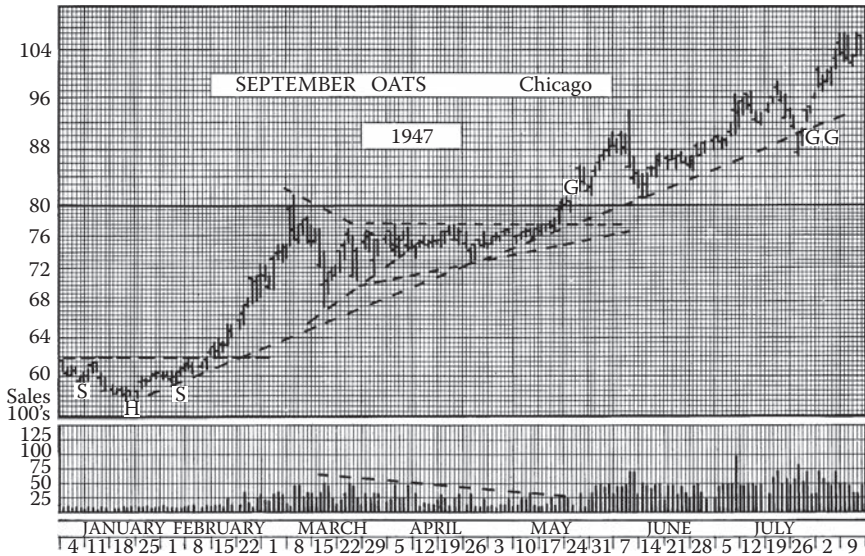


Figure 16.1 Oats, for obvious reasons, traced more “normal” patterns than Wheat during the 1940s. This chart contains an H & S bottom, a Symmetrical Triangle that merged into the Ascending form, a gap through a former top level, and an interesting trendline. The Island shake-out through the trendline was an extremely deceptive development.

It may be in order here to discuss briefly some of the intrinsic differences between commodity futures and stocks referred to above and to some of the special traits of commodity charts. First, the most important difference is the contracts for future delivery, which are the stock-in-trade of the commodity exchange, have a limited life. For example, the October cotton contract for any given year has a trading life of about 18 months. It comes “on the board” as a “new issue,” is traded with volume increasing more or less steadily during that period, and then vanishes. Theoretically, it is a distinct and separate commodity from all other cotton deliveries. Practically, it seldom gets far out of line with such other deliveries as are being bought and sold during the same period, or with the “cash” price of the physical cotton in warehouses. Nevertheless, it has this special quality of a limited independent life, as a consequence of which long-term Support and Resistance Levels have no meaning whatever. (*EN10: This absolute may not be absolute. Evaluate the long-term charts for your issue to see whether influence is evident.*)

Second, a very large share of the transactions in commodity futures—as much as 80% certainly in normal times—represents commercial hedging rather than speculation. (*EN10: Less true in the twenty-first century.*) It is, in fact, entered in to obviate risk and to avoid speculation. Hence, even near-term Support and Resistance Levels have relatively less potency than with stocks. Also, because hedging is to a considerable degree subject to seasonal factors, there are definite seasonal influences on the commodity price trends that the commodity speculator must keep in mind, even if only to weigh the meaning of their apparent absence at any given period.

A third difference is in the matter of volume. The interpretation of volume with respect to trading in stocks is relatively simple, but it is greatly complicated in commodities by the fact that there is, in theory, no limit to the number of contracts for a certain future delivery that may be sold in advance of the delivery date. In the case of any given stock, the number

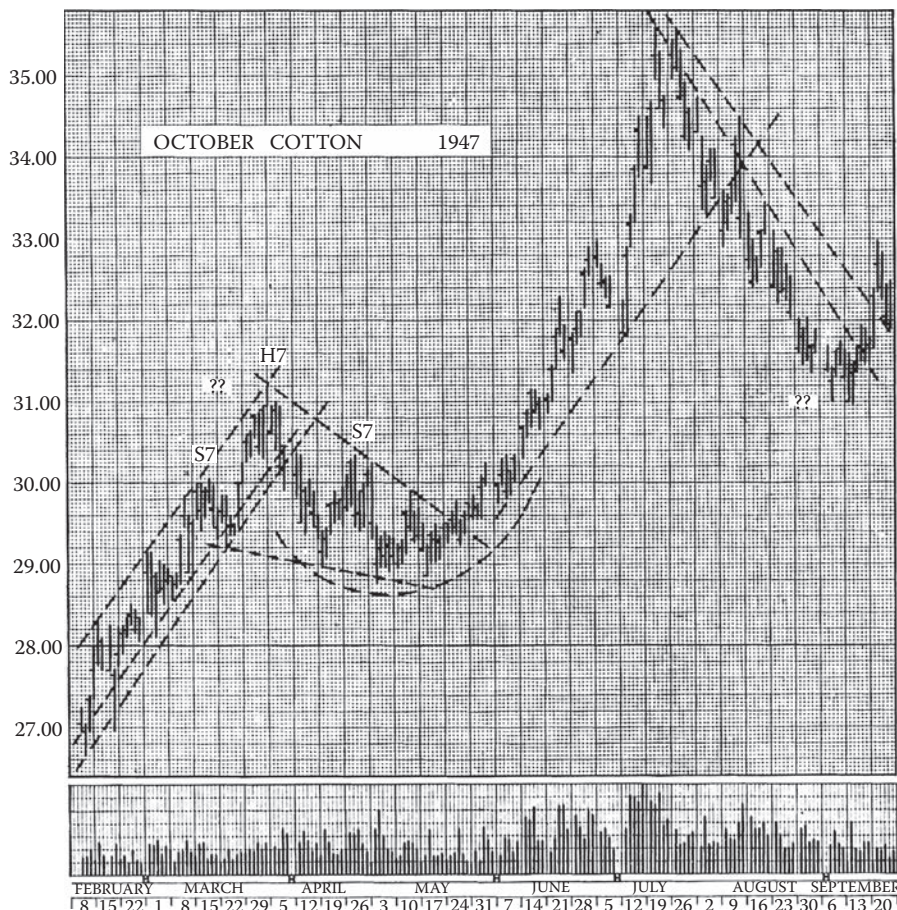


Figure 16.2 In contrast with the grains, the technical action of the Cotton futures markets has been fairly consistent with normal supply–demand functioning ever since prices rose well above government support levels. In this daily chart of the 1947 October delivery (New York Cotton Exchange), the reader will find a variety of familiar technical formations, including critical trendlines, a Head-and-Shoulders top that was never completed (no breakout), and Support–Resistance phenomena much the same as appear in stock charts. Double trendlines are not at all unusual in Cotton charts.

of shares outstanding is always known. As this is written (1956), there are in the hands of stockholders 13,700,203 common shares of Consolidated Edison, and that quantity has not varied for many years nor is it likely to change for several years to come. Every transaction in Consolidated Edison involves an actual transfer of one or more of those existing shares. In the case of commodity future contracts—say, September wheat—trading begins long before anyone knows how many bushels of wheat will exist to be delivered that coming September, and the open interest at some time during the life of the contract may exceed the potential supply many times over, and all quite legitimately. (*EN9: As always, volume data is a supplementary indicator to price. No one makes a profit on it.*)

One more important difference may be mentioned. Certain kinds of news—about weather, drought, floods, and so on that affect the growing crop, if we are dealing with an agricultural commodity—can change the trend of the futures market immediately



Figure 16.3 A Rounding Bottom in Gold 1997–2004. “These patterns, when they occur *after an extensive decline*, are of outstanding importance, for they nearly always denote a change in Primary Trend and an extensive advance yet to come. That advance, however, seldom carries in a ‘skyrocket’ effect, which completes the entire Major Move in a few weeks. On the contrary, the uptrend that follows the completion of the pattern itself is apt to be slow and subject to frequent interruptions, tiring out the impatient trader, but yielding eventually a substantial profit.” So said Robert Edwards in remarking on Rounding Bottoms in stock charts. As may be seen here, this Rounding Bottom consists of a downtrend, a false signal off the Double Bottom (upon which a pretty penny might have been made by the agile trader), and a handsome uptrend—and it all looks like a huge Rounding Bottom.

and drastically and are not foreseeable given the present stage of our weather knowledge. Analogous developments in the stock market are extremely rare. (EN: *Except for acts of God and Alan Greenspan [and Ben Bernanke]*).

It is not the purpose of this book to explain the operation of commodity futures markets, nor to offer instruction to those who wish to trade therein. This brief chapter is included only as a starter for readers who may want to pursue the study further. They should be advised that successful speculation in commodities requires far more specialized knowledge and demands more constant daily and hourly attention. The ordinary individual can hope to attain a fair degree of success in investing in securities by devoting only his spare moments to his charts, but he might better shun commodity speculation entirely unless he is prepared to make a career of it.

(EN: *The editor has been, during his checkered career, a registered commodity trading advisor. At the beginning of that career, I discussed these subjects with Magee and received essentially the above comments, which are here reproduced from the fifth edition. Subsequently, I observed among my associates and partners, and on my own, that futures are eminently tradable with the adaptation of techniques and methods described in this book. It is also true, as Magee says, that futures trading is so different in tempo, leverage, and character that the novice risks life, limb, and capital in entering the area unescorted. Resource references are essential reading, but the beginner is urged to educate himself before beginning trading with extensive study and paper trading.*)



Figure 16.4 Gold, October 2011. The momentous earth-shaking power of a massive rounding bottom is vividly dramatized by the gold chart since 2005, as well as the power of chart analysis to anticipate it. Regrettably, the editor did not compute the price target implications of the pattern in the ninth edition in 2005. That computation was made at the <http://www.edwards-magee.com> website at the time. There it was computed as follows (and the reader can do it for himself): depth of pattern, 248.20 plus neckline 507.40, target 755.60. In fact, the possibility was entertained that the entire formation from 1980 to 2008 might be a Rounding Bottom. In which case, the depth was 700.70, added to the neckline of 959 and resulted, actually achieve, in a target of 1,660. Remember Edwards said these were probable minimum measurements.

Technical analysis of commodity charts, part 2: a 21st-century perspective

In the search for the Philosopher's Stone, more sweat and money have been put into the area of commodities and futures than were ever expended in the securities arena. There is a simple reason for this—great fortunes are made and lost with much greater rapidity in the futures area than in securities. Of all the great dramatic moments in stock market history, few are so memorable as the great Hunt silver market, or Soros facing off against the Bank of England, or of gold soaring to \$1,000 an ounce (deferred contracts). And the saga continues in 2005: \$50 oil? \$60? \$70? \$100? And the effects, economic and psychological! In dimly lit garrets and brightly lit computer rooms thousands of researchers concoct systems to trade these markets—corn, soybeans, silver, copper ...

Rocket scientists

At times, individual traders and groups of traders have plundered (harvested?) these markets for fairy tale profits. I know whereof I speak, having been a principal in California's first licensed commodity trading advisor that was founded by the NASA rocket scientist R. T. Wieckowicz. During the 1970s, as the stock markets ground futilely around the 1,000 level on the Dow, the futures markets returned yearly gains in the 100% range. Consistently. For years. Those were the years of the California systems traders and the beginning of computerized trading. From the primeval slime of NASA, rocket scientists emerged to create a renaissance in market technology. At the time it seemed clear that science and genius had at last conquered the markets and that clients would come buzzing from the world over like bees to a honey

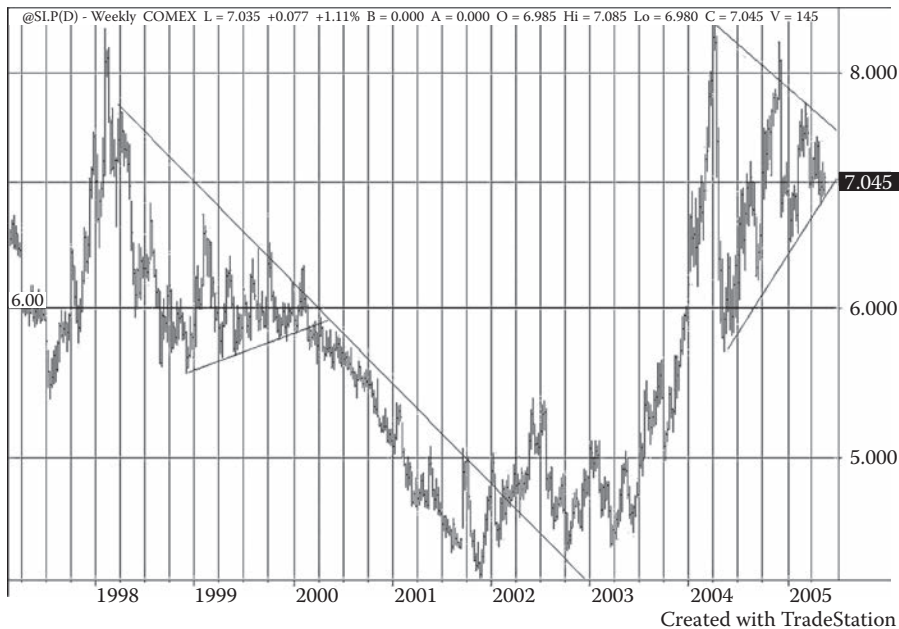


Figure 16.5 A Rounding Bottom in Silver, 1998–2005. The apparent Rounding Bottom in silver, combined with the same pattern in gold, would seem to cast a pall over the economic situation for some time to come in 2005. This coincides with the apparent long-term patterns setting up in the securities markets. If the best that can be hoped for in securities is a 1965–1982 kind of widely whipping market, commodities may react as they did in the 1970s—with tidal wave markets. These markets can be traded by the well-capitalized chart analyst who is well seasoned. Tyros will lose money learning the game whatever markets they trade. Their chances will be immeasurably improved by applying the techniques taught in this book. In addition to the technical pattern pictured here, there is every reason to suspect that a large fundamental shortage of silver bullion exists and will worsen. Ted Butler, at <http://www.doomgloom.com>, is a long-term silver analyst (and associate of the editor) who anticipates a new silver blow-off is coming. One wonders what Nelson and Bunker Hunt are doing at present. A very cautious investor (like Warren Buffet who is reported to have invested \$1 billion in silver bullion) may defeat futures silver volatility by buying the bullion.

pot and that the rivers of profits would last forever. They did last for some time, and then the markets changed. Mechanical systems that cut through the markets like a reaper in a wheat field in Bull Markets grind up capital like sausage in sideways markets. Science and genius were revealed as the happy combination of man, moment, system, and market.

Turtles?

During the 1980s from the sea came crawling the Turtles. Progeny of the protean trading wizard, Richard Dennis, the Turtles again harvested outsize profits from the markets, reportedly running in the 80% yearly range. The so-called Turtles got their name from a comment that Dennis is reported to have made that traders were made not born, and he was going to raise traders like turtles. Additional reading about the Turtles is available in Jack Schwager's fascinating books, including *Market Wizards* and others. Schwager's books are required reading for aspiring futures traders. Additionally, the trading manual of the Turtles will be found online at <http://www.originalturtles.org>. This workbook, written by



Figure 16.6 Silver, May 2005. Although the long-term silver outlook may be Bullish, the short term will be very volatile, especially for the thinly capitalized trader. Then short-term tactics must be adopted. The Island Top here at 1 is a gentle invitation to the trader to take his profits and be gone. Even to short, with a stop just above the high. The run day after 1 adds a note of urgency to the invitation. The gap is punishment for the hard of hearing and a bonus for the quick-witted (everybody who survives in futures is either quick witted or extremely well financed). The stop moves down to the top of the gap day, then to the top of the next gap day, and for the very apt profits are taken on the next run day down, on the principle of sell weakness, buy weakness. The tight trendline at 2 crossed by the heavy run day is a buy signal with the stop moving to the bottom of the gap at 3, where it is taken out a few days later by the long-range day down. The run day at 4 is a short signal with the stop being at the day's high. Is it necessary to say short-term futures trading can be quite rapid? There is always bullion or associated stock plays.

Curtis Faith, an original Turtle, contains virtually all of the elements necessary in a trader's systems and procedures manual. The manual was prepared according to the training Dennis gave his Turtles. Serious traders do not operate without some such document. Certainly all of the serious traders I have known (a considerable number) have had fully developed manuals like the Turtle workbook. I cite the Turtle workbook rather than others in my possession because it is publicly available at <http://www.originalturtles.org> (as well as in the 9th edition of this book) and because it is beautifully articulated.

In the late 1990s, the Turtles were made into turtle soup in the futures markets as the majority of systems traders wound up as hamburger meat. *Is there a moral? Yes. The markets giveth and the markets taketh away. Science and genius are again revealed to be the happy combination of man, method, moment, and market.*

The Turtle system is basically an adaptation of Richard Donchian's channel breakout system. In the Donchian system, the trader goes long when the 20-day high is broken and sells and goes short when the 20-day low is broken. In the 1970s, Dunn and Hargitt evaluated a number of mechanical trading systems and found that Donchian's system was superior to the others evaluated at that time. Will Donchian's system still work? Yes,



Figure 16.7 Silver, October 2011. Here is what happened in silver after the ninth edition was published. Could there be any greater vindication of the value of charts looking at the issue six years later? Just as in the case of gold, the analysis allowed the analyst to anticipate a monster Bull Market. On <http://www.edwards-magee.com>, the authors wrote letters all during this time pointing out the silver Bull. Measuring the entire formation, the depth is 33.96, added to the neckline of 37.5 equals 71.46. This seems quite fanciful to us, but that is the measurement.

in broadly trending markets. Will the Turtle system still work? Yes, in broadly trending markets. Plus, like virtually all mechanical systems, they do not know whether they are in a broadly trending market or not. They are blind—all they see are ones and zeros. The addition to these systems of prudently applied chart analysis will immeasurably improve their performance and risk characteristics.

The application of Edwards and Magee's methods to 21st-century futures markets

During my career as a commodity trading advisor, I have known a number of successful traders and advisors who used what I would describe as Magee-type chart analysis to make their trades. Often, other elements were input into their decision-making process, but manual charting was a key factor in their operations. Some of these traders used simple trendline analysis with price or volume filters and some used a combination of trendlines and support and resistance. *All were trend followers.*

Having looked at the futures markets with some attention over the past several years, it seems to me there is no reason why chart analysis should not work as well now in futures as it has always worked in stocks. Essentially, the questions raised by securities trading are the same as those presented by futures trading in the analysis of a chart. Is there a trend? Where are support and resistance? Is there a breakout? Are there waves and wavelets? How do you enter and how do you exit?

The great bug-a-boo of securities traders coming to the futures trading is the speed of the game. Like college football players stepping up to the NFL, there is a brutal learning curve and rookies are the most likely to get killed. I am not going to make any effort here to present a primer for new futures traders, but rather, I will look at some futures charts at the end of this chapter to show the journeyman that chart analysis can be used



Figure 16.8 Treasury Bonds. The double-pump triple-nod head fake is a specialty of futures markets. The fear and greed factor are multiplied by 10, like the leverage. But here in September 2004 Bonds, we can see how simple chart analysis can serve the trader. The downtrend from March (1) is completely manageable with a simple trendline and trend analysis. The end of the downtrend in May is marked by two strong run days. At any rate, the stop would have been at May 1, using a Basing Point kind of analysis. If we were going to trade it long, this would have been traded for a scalp (because we do not know whether or not there is a bottom). The break of the trendline at 2 is an engraved invitation to get long and the trendline at 3 keeps us long until broken by the signal day at the end of July. This would put us short again, whereas a two-day trade as the signal day on the trendline at 4 puts us long again. Obviously, we are using very tight, short trendlines and long-range days (or run days) as signals. The use of the run day as a signal, combined with other indicators, is common in my experience among traders.

as a decision-making method in these dramatic markets. Again, chart analysis has the weakness (or strength) of being a qualitative process. It will not make decisions for the average trader, as a mechanical system will.

On the other hand, a breakout is a breakout. A gap is a gap, leaving aside the question of limit move gaps for the moment. A trend is a trend. And here is the great advantage that a firm grasp of charting methods can give the practitioner. *It can give him the perspective to recognize the essential nature of the market at hand and choose to wait or to enter.* Mechanical methods not having the qualitative discrimination of an experienced chartist will blindly take every trade until they are out of money. The experienced chart analyst can sit back and say, this market has not yet made a bottom and the time to begin trading it long has not yet come. Or, he can recognize the essential differences between a trading and a trending market and adjust his tactics accordingly. As Magee noted in [Chapter 16](#):

Under what might be called normal market conditions, those chart patterns which reflect trend changes in most simple and logical fashion work just as well with commodities as with stocks. Among these we would list Head-and-Shoulders formations, Rounding Tops



Figure 16.9 Commodity Research Bureau Index, April 2005 Futures. Just as Triangles often work in securities, they often work in futures. Breakaway gap, second breakaway gap, runaway gap, second runaway gap—this is the formation before the second runaway gap is somewhat quizzical—it might be considered a flag, but it has the same effect, and depending on the trader's operating methods, the stop would be just under the gap/run day anyway. It will not take much study for the reader to see the principles of chart analysis used in this entire book are validated here. The main difference is in the setting of stops, and in fact, the same stop methods may be used if the trader is sufficiently well financed.

and Bottoms, and basic trendlines. Trendlines, in fact, are somewhat better defined and more useful in commodities than in stocks. Other types of chart formations which are associated with stocks with short-term trading or with group distribution and accumulation, such as the Triangles, Rectangles, Flags, etc., appear less frequently in commodities and are far less reliable as to either direction or extent of the ensuing move. Support and Resistance Levels, as we have already noted, are less potent in commodities than in stocks; sometimes they seem to work to perfection, but just as often they don't. For similar reasons, gaps have relatively less technical significance.

These words remain true today, as do virtually all the principles enunciated in this book by Edwards and Magee and myself. In fact, if most futures charts were given to an



Figure 16.10 Commodity Research Bureau (CRB), long-term view. It does not take much analysis of this 10-year CRB chart to see a huge Double Bottom and to consider its implications. If China and India are going to compete with us for natural resources, we could see an entirely new economic paradigm, if the reader will excuse the term. Clearly, there is a Bull market in commodities. In [Chapter 42](#), Pragmatic Portfolio Management, it is suggested that capital should flow to markets that are moving, rather than remaining committed to markets that are mired in mulish trends. Furthermore, it is suggested in that chapter that a good natural hedge is to go long on the uptrend of an index and short the components of it that are in downtrends. The CRB is somewhat thin but might lend itself to this strategy.



Figure 16.11 The 20-year bonds as expressed in the TLT; ETF Bonds display classical signals of absolute clarity.

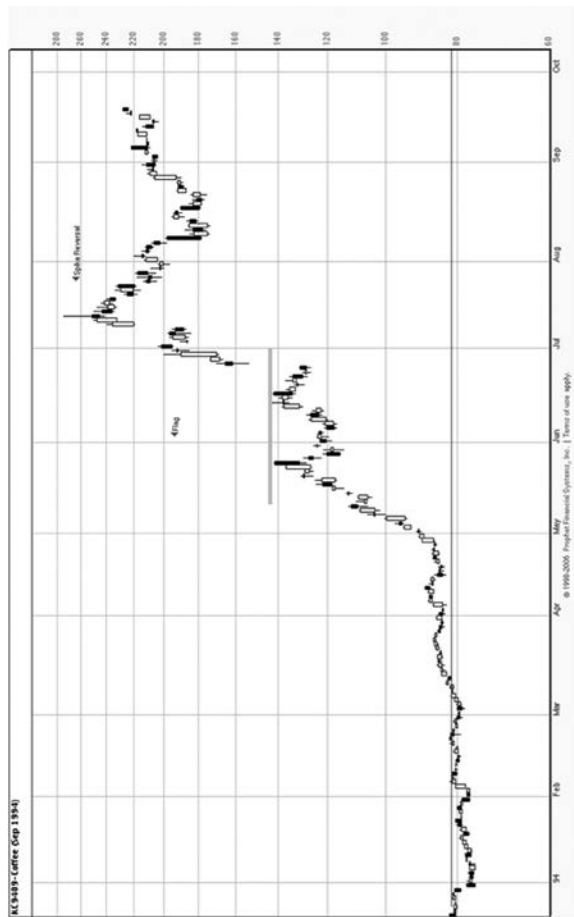


Figure 16.12 September, 1994. Coffee was so easy in retrospect that it should be engraved on a brass plate. The long is taken on the breakout of the horizontal trendline. The position is never in any danger, as there is no down-wave of significance until May when stops are advanced to stay 5% under lows (Basing Points). The May down-wave allows a Basing Point stop to be established. The breakaway gap is a windfall profit. The flag tells us that more is coming—as it does with another gap and run days—until the spike reversal, which is a clear signal to be out on the close. A gap up on the open, an exploration up, and a close down—an absolutely clear message of reversal from the market.

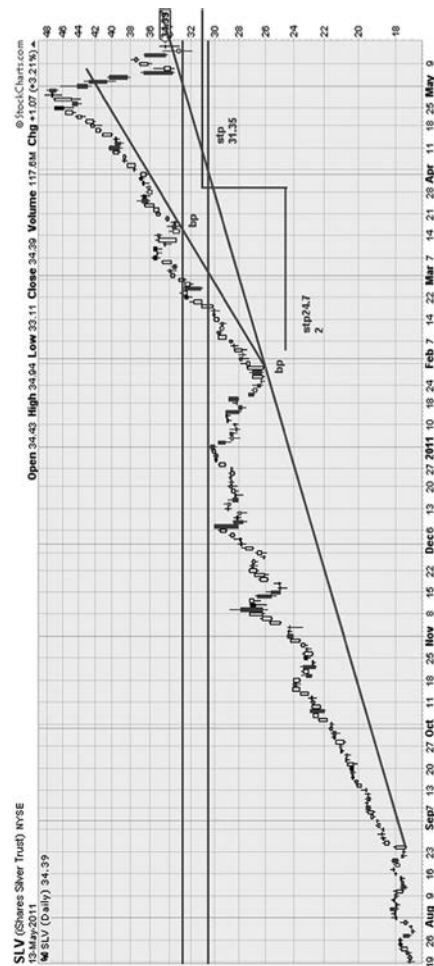


Figure 16.13 The May 11 top in silver. In the first quarter of 2011, silver took off in a roaring uptrend. Any surprise here, after looking at the Bounding Bottom? As seen in the chart, it came near to going parabolic. The top notice came on April 25—interestingly on a reversal bar. Reading the Candlestick, the market gapped wide on the opening and took a long excursion down to close the opening gap. Then bargain hunters thought they were getting a good price on silver and drove the price back up, so it did not close on the lows. The next day, it gapped down on the open and basically wandered down all day long—the party was over. The signs were subtle.

analyst, without issue identification and dates would not be identifiable as commodity charts. When limit moves appear, the difference slaps one in the face. On this point I might differ from Magee slightly as regards to gaps. Obviously, limit move gaps have breathtaking significance. All in all, it seems to me gaps often say the same thing to futures analysts as they do to stock analysts.

Another mathematical reason might be adduced for the practicality of using simple chart analysis to trade futures. That is the tautological nature of the method. A trend is a trend, and a trendline is a trendline. If you enter a suspected trend (setting a protective stop at a technically analyzed place) and follow the trend using Basing Points or observing the trendline and exiting on a break and reversal there will be no difference from doing the same with a stock. Well, some difference. Due to the leverage, you will be required to be hyperaware of risk. In futures, the penalty for holding a position through “a normal reaction” can be extremely harsh. That is why stops are so important.

The TLT chart from late 2008 is a spectacular display of patterns and signals. This pattern has appeared many times before and will appear again in the future.

Prices break out of a sideways pattern on a strong gap. The gap is across the trendline, which is what makes the signal significant. Every gap is not a signal. In this case, the gap is extra significant because there is a power bar on the gap day—it should be bought. This is called a breakaway gap. Prices continue to progress, and a few days later another gap occurs. This is a runaway gap and is another signal.

Shortly thereafter, prices drift sideways for a few days. This is a flag. Flags are vivid messages to traders. Robert Edwards described how they are used. He said, “The flag flies at half-mast,” meaning after a rocket-like advance and this formation, prices should advance on at least as far as they had come.

Power bars (signals) exit from the flag, and then another gap occurs. This is the exhaustion gap. This is a message to exit longs and to short the issue. The message could not have been clearer.

The skilled trader, first of all, catches the original signal—the power bar exiting from the sideways pattern. He then pyramids on the subsequent signals. Exiting from the flag, a good trader should have a boatload of this issue, and at the top, selling after the exhaustion gap, he should have made at least a small killing.

Stops

Some traders set their stops using money management rules rather than technically identified points. I believe it is always better to find the technical point using a Basing Point, or support and resistance. To me it makes better sense to adjust position size to control risk as I describe in [Chapter 26](#). The use of money management stops has been very successful for many traders. *If some logical and disciplined method of setting and observing stops is not installed, the trader is assured of failure.*

A money management stop is, simply enough, a stop calculated by deciding to risk 2% (or 3% or 4% or x%) of capital on a trade. For example, William O’Neil says that when a stock trader enters a position, he should set a stop 8% under his entry price. This is a little crude, and not strictly speaking, a money management stop, but it is better than no risk calculation at all. In a stricter sense, if we said we wanted to limit the risk of the trade to 3% of capital, we would use the 8% rule to set the stop and the Scott Procedure in [Chapter 26](#) to determine the number of shares or contracts. The Turtle system contains similar

procedures. Numerous studies have proven the size of the risk per trade—1%, 2%, 3%—is directly correlated to equity volatility.

The 25th looked like a reversal day. The gap down on the 26th could have been considered the closing of an exhaustion gap—not apparent here because the tails (shadows) of the candlesticks obscure the complete price behavior.

(EN10: In the 10th edition, a new section on stops in [Chapter 27](#) examines a number of stop methods.)

A variety of methods

As noted above, a competent chart analyst may, in my opinion (and in Magee's opinion), perform profitably in the futures markets. There are other questions, of course, namely of character, temperament, intelligence, judgment, and so on. Let us leave those questions to Dr. Elder and confine ourselves to the method question. Chart analysts proved their abilities in the futures markets long before computers existed. In fact, long before in the case of Japanese rice traders, enlightening their efforts with candlesticks in the eighteenth century.

In the 1970s, I saw point and figure chartists enjoy great success at Dean Witter and Merrill Lynch and other major firms in futures. I have seen least squares curve fitters, moving average calculators, and abstruse statistical analysts all enjoy profitable outings in commodities. Not to speak of the Turtles who, using naturalistic high-low systems, harvested good profits in the markets. As the saying goes, gateless is the gate and many are the ways to the great Dow. Although I have enjoyed great success myself using mechanical number-driven systems over the years, I have become more and more attracted to "natural" systems. Chart analysis is essentially natural, as is the Turtle system. The Dow Theory is a natural system in which no mathematical algorithm comes between the analyst and the data. The essential, more, quintessential, weakness of all number-driven systems is their blindness. They do not have the ability to discriminate between the forest and the trees. The experienced human chartist can *see* (and hear) the changing rhythms of the market and respond to them, responding to factors too subtle (and even subconscious) to program. Nevertheless, even natural systems, like the Turtle systems, can fall into this trap. When the markets learn a lot of capital is waiting just above the 20-day high, they will set a trap for it. For "markets" you may read "they." If you apply the knowledge of this book to such situations, you may avoid the trap.

Everything you need to know as a chart analyst trading futures

"Jack be nimble, Jack be quick, Jack jump over the Candlestick." Yes, it is true, as the leverage is 10 times greater and the speed is 10 times faster. I have illustrated in [Figure 16.9](#) the combination of a very tight trendline with a run day, which it seems to me is a good current (twenty-first century) combination. Otherwise, the same qualities that make a good securities trader make a good futures trader once the great leap to leveraged quick-fire markets is made. If you have been successful trading stocks, you will probably be successful trading futures, and you probably should practice on stocks while studying futures. A sobering fact I often recount to my graduate students is that Richard Wyckoff worked in the securities business for eight years before making his first investment; he studied the markets an additional six years before *trading*.

The Magee methodology will serve as a valuable cornerstone of your futures operations and you must never cease studying. Mechanical systems have their attractions, especially when seasoned with experienced chart analysis. No method will survive unless practiced with diligence, persistence, judgment, and patience. Time and again you will hear famous traders say discipline is the secret of their success. What they mean by discipline is their ability to measure and contain the risk, set a stop based on technical or money management procedures, and *then honor the stop*. The most important lesson the futures trader has to learn from Edwards and Magee is the ability to see the character of the market, trading or trending, and then *to adjust his tactics accordingly*.

In the next great Bull Market in commodities, which is inevitable, these methods and systems derived from them will once again reap windfall profits.

I have attempted in the ninth edition of this classic book to show the book's usefulness to the intelligent futures trader. Simple classical chart analysis alone can be successful in the futures markets in the hands of an experienced competent analyst. Natural mechanical systems such as the Turtle system have been effective and will be again, perhaps with some tweaking (such as imposing a chart analysis superstructure). Wave analysis methods such as the Basing Points Procedure of [Chapter 28](#) can be used. Even number-driven systems, such as moving averages, can be successful, especially if combined with chart analysis.

A summary and concluding comments

We began our study of technical stock chart analysis in [Chapter 1](#) with a discussion of the *philosophy* underlying the technical approach to the problems of trading and investing. We could ask the reader to turn back now and review those few pages to recapture a perspective on the subject that must have been dimmed by the many pages of more or less arduous reading that have intervened. (For illustrations in this chapter, see [Figures 171 through 174](#).)

It is easy, in a detailed study of the many and fascinating phenomena that stock charts exhibit, to lose sight of the fact they are only the rather imperfect instruments by which we hope to gauge the relative strength of supply and demand, which, in turn, exclusively determines what way, how fast, and how far a stock will go.

Remember, in this work, it does not matter what creates the supply and the demand. The fact of their existence and the balance between them are all that count. No man, no organization (and we mean this *verbatim et literatim*) can hope to know and accurately appraise the infinity of factual data, mass moods, individual necessities, hopes, fears, estimates, and guesses that, with the subtle alterations ever proceeding in the general economic framework, combine to generate supply and demand. Nevertheless, the summation of all these factors is reflected virtually instantaneously in the market.

The technical analyst's task is to interpret the action of the market itself—to read the flux in supply and demand mirrored therein. For this task, charts are the most satisfactory tools thus far devised. Lest you become enrapt, however, with the mechanics of the chart—the minutiae of daily fluctuations—ask yourself constantly, “What does this action really mean in terms of supply and demand?”

Judgment, perspective, and a constant reversion to first principles is required. A chart, as we have said and should never forget, is not a perfect tool nor a robot; it does not give all the answers quickly, easily, or positively, in terms anyone can read and translate at once into certain profit.

We have examined and tested exhaustively many technical theories, systems, indexes, and devices that have not been discussed in this book (chiefly because they tend to short-circuit judgment) to see the impossible by a purely mechanical approach to what is far from a purely mechanical problem. The methods of chart analysis that have been presented are those that have proved most useful because they are relatively simple and easily rationalized since they stick closely to first principles. Additionally, they are of a nature that does not lead us to expect too much of them and they supplement each other and work well together.

Let us review these methods briefly. They fall roughly into four categories:

1. The **Area Patterns** or formations of price fluctuation that, with their concomitant volume, indicate an important change in the supply–demand balance. They can signify Consolidation, a recuperation or gathering of strength for renewed drive in the *same direction* as the trend that preceded them. Or they can indicate Reversal, the playing out of the force formerly prevailing, and the victory of the opposing force, resulting in a new drive in the *reverse direction*. In either case, they may be described as periods during which energy is brewed or pressure is built up to propel prices in

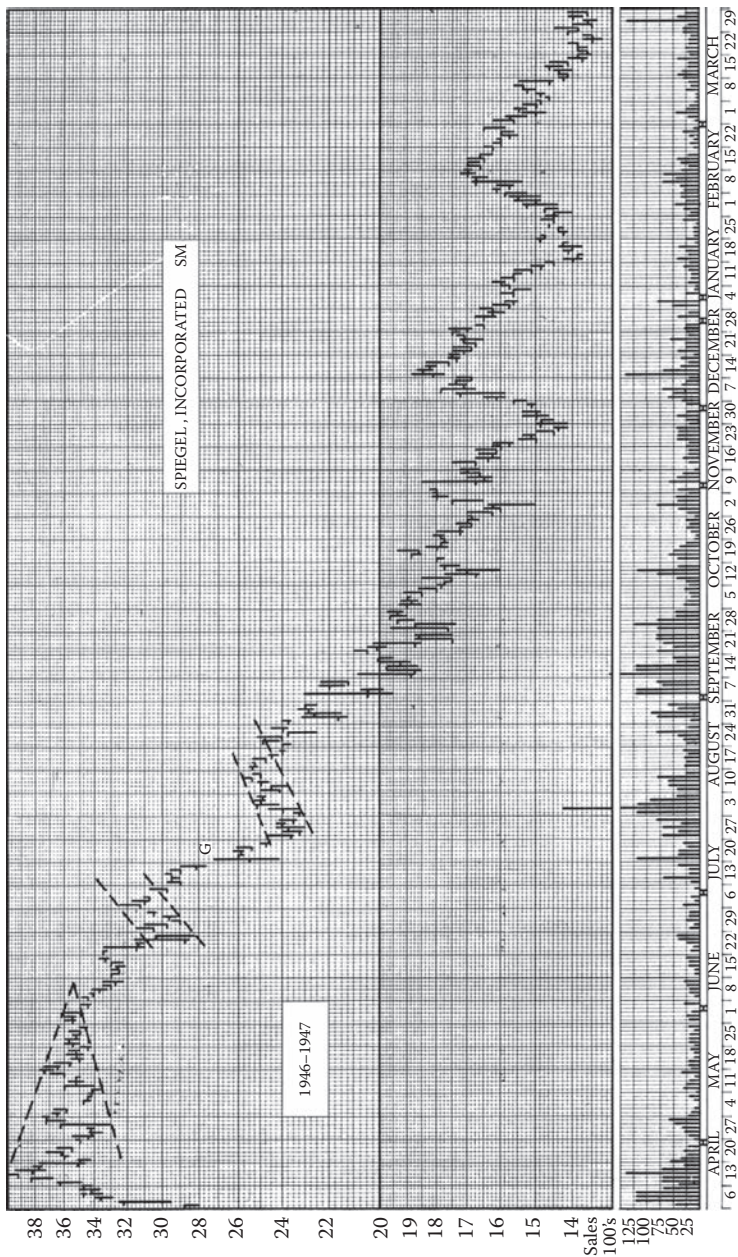


Figure 17.1 Spiegel's Bear Market started in April 1946 from a Symmetrical Triangle that changed into a Descending Triangle. Note the Pullback in June and two Flags. This history is carried on in Figure 17.2, which overlaps Figure 17.1; this chart shows the move that ensued from the wide Descending Triangle of early 1947, culminating in a Reversal Day on May 19. Note various Minor and Intermediate Resistance Levels.

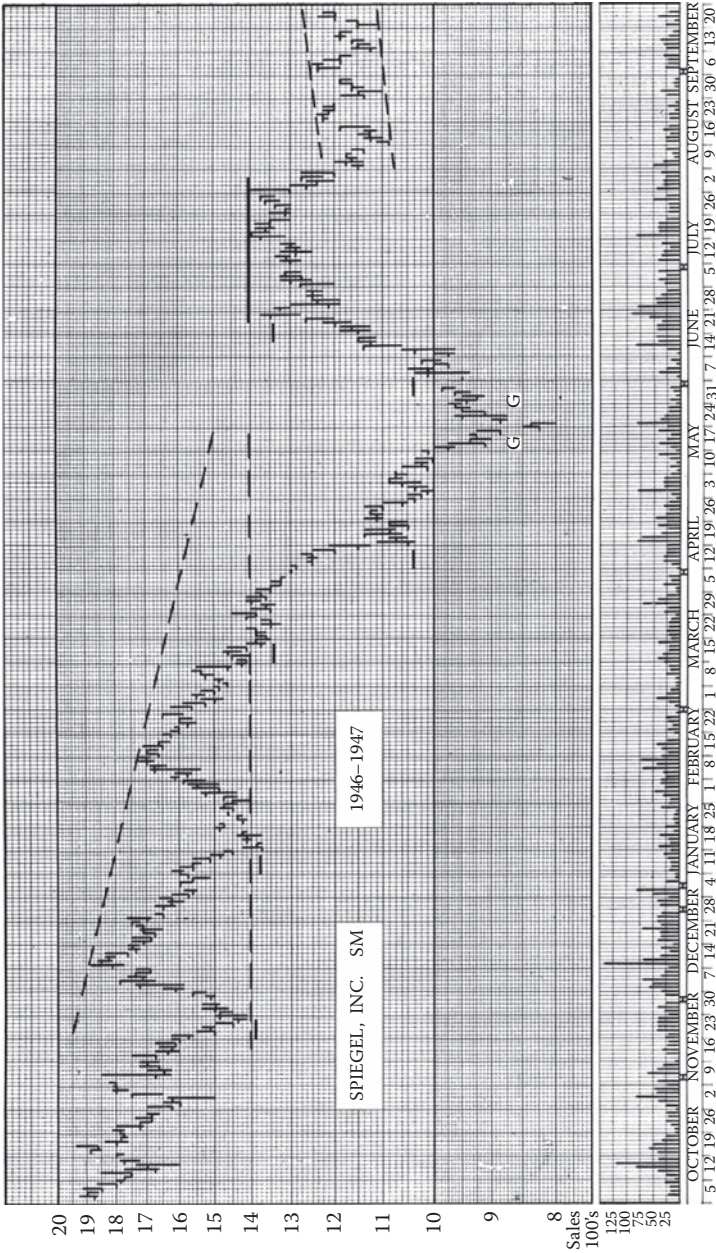


Figure 17.2 Overlapping Figure 17.1, this chart shows the move that ensued from the wide Descending Triangle of early 1947, culminating in a Reversal Day on May 19. Note various Minor and Intermediate Resistance Levels.

a move (up or down) that can be turned to profit. Some of them provide an indication as to how far their pressure will push prices. These chart formations, together with volume, furnish the technician with most of his “get-in” and many of his “get-out” signals.

Volume, which has not been discussed in this book as a feature apart from price action, and which cannot, in fact, be utilized as a technical guide by itself, deserves some further comment. Remember it is *relative* that it tends naturally to run higher near the top of a Bull Market than near the bottom of a Bear Market. Volume “follows the trend,” meaning it increases on rallies and decreases on reactions in an overall uptrend, and vice versa. But use this rule judiciously; do not place too much dependence on the showing of a few days and bear in mind that even in a Bear Market (except during Panic Moves), there is always a slight tendency for activity to pick up on rises. (“Prices can fall of their own weight, but it takes buying to put them up” as Edwards said.)

A notable increase in activity, as compared with previous days or weeks, may signify either the beginning (breakout) or the end (climax) of a move, temporary or final. (More rarely, it may signify a “shakeout.”) Its meaning, in any given case, can be determined by its relation to the price pattern.

2. **Trend and trendline** studies supplement Area Patterns as a means of determining the general direction in which prices are moving and of detecting changes in direction. Although lacking the nice definition of Area Formations, they may frequently be used for “get-in” and “get-out” purposes in short-term trading, as well as provide a defense against premature relinquishment of profitable long-term positions.
3. **Support and Resistance Levels** are created by the previous trading and investment commitments of others. They may indicate where it should pay to take a position, but their more important technical function is to show where a move is likely to slow down or end, and at what level it should encounter a sudden and important increase in supply or demand.

Before entering a trade, look both to the pattern of origin for an indication of the power behind the move and to the history of Support–Resistance for an indication as to whether it can proceed without difficulty for a profitable distance. Support–Resistance studies are especially useful in providing “cash-in” or “switch” signals.

4. **Broad market background**, including the **Dow Theory**, should not be scorned. This time-tested device designates the (presumed) prevailing Major Trend of the market. Its signals are “late,” but with all its faults (like the greatly augmented following it has acquired in recent years resulting in a considerable artificial stimulation of activity at certain periods), it is still an invaluable adjunct to the technical trader’s toolkit.

The general characteristics of the various stages in the stock market’s great Primary Bull and Bear cycles, which were discussed in our Dow Theory chapters, should never be lost to view. This brings us back to the idea of *perspective*, which we emphasized as essential to successful technical analysis at the beginning of our summary. The stock that does not, to some degree, follow the Major Trend of the market as a whole is an extraordinary exception. More money has been lost by buying perfectly good stocks in the later and most exciting phases of a Bull Market, and then selling them, perhaps from necessity, in the discouraging conditions prevailing in a Bear Market, than from all other causes combined.

Hence, keep your perspective on the broad market picture. The basic economic tide is one of the most important elements in the supply–demand equation for each individual stock. It may pay to buck “the public,” but it does not ever pay to buck the real underlying trend.

Major Bull and Bear Markets have recurred in fairly regular patterns throughout all recorded economic history, and there is no reason to suppose they will not continue to recur for as long as our present system exists. It is well to keep in mind that caution is in order whenever stock prices are at historically high levels and that purchases will usually work out well eventually when they are at historically low levels.

If you make known your interest in your charts, you will be told the chart analyst (like the Dow theorist) is always late—buying after prices have already started up (maybe not until long after the “smart money” has completed its accumulation) and sells after the trend has unmistakably turned down. Partly true, as you have no doubt already discovered for yourself. The secret of success lies not in buying at the very lowest possible price and selling at the absolute top, but rather in the *avoidance of large losses*. (Small losses you will have to take, and as quickly as possible as warranted by the situation.)

One of the most successful “operators” Wall Street has ever seen, Bernard Baruch, a multimillionaire and a nationally respected citizen today, is reputed to have said never in his entire career had he succeeded in buying within 5 points of the bottom or selling within 5 points of the top! (*EN: For perspective, the 5 points mentioned constituted roughly 10% of the market at that time.*)

Before we leave this treatise on theory and proceed to the more practical matters of application and market tactics that are the province of Section II of this book, the reader will, we hope, forgive one more admonition. There is nothing in the science of technical analysis that requires one always to have a position in the market. There is nothing that dictates something must happen every day. There are periods—sometimes long months—when the conservative trader’s best policy is to stay out entirely. What is more there is nothing in technical analysis to compel the market to go ahead and complete (in a few days) a move the charts have foretold; it will take its own good time. Patience is as much a virtue in stock trading as in any other human activity.

Technical analysis and technology in the 21st century: the computer and the internet: tools of the investment/information revolution

The purpose of this section is to put computer and information technology into proper context and perspective for chart-oriented technical analysts.

In John Magee’s time, in his office in Springfield, Massachusetts, there was a chart room—a room filled with all-age chartists from teenagers to senior citizens. These people spent all their time keeping charts and assisting Magee in interpretation. These were wonderful and intelligent people who developed marvelous insights into the stocks they charted as well as created the manual charts that adorn this book.

Today, that room and all those technicians have been replaced by a beige (sometimes lime) box that sits crowded on our desktops and that is often worshipped as a fount of insight and wisdom: “Computer, analyze my stocks.”

Unfortunately, the computer does not have the discrimination and pattern recognition ability of the people in that chart room. Undeterred by this weakness in computer technology, traders and investors have poured incalculable money and effort into computer-aided research, attempting to discover the keys to market success. More money has been spent in this effort than was ever put into the search for the philosopher’s stone. Much of it was wasted, but it has not all been spent in vain. In some areas, it has been quite productive. But no fail-safe algorithm, in spite of all this effort, has been found for investment success,

and certainly not for stock trading. The research *has* demonstrated that even the algorithm of “buy low, sell high” has fatal flaws in it.

To fully understand the importance of the computer, the reader should appreciate some basic differences in participants’ approach to the markets, or, we might say, schools of analysts and investors. We will not bother with fundamental analysts here, as they are of a different religious persuasion. Chart analysts, or Magee-type technical analysts, pretty much confine their analysis of the market to the interpretation of bar charts. (This does not mean their minds must be closed to other inputs. On the contrary—anything that works.) Another chart analyst school uses point and figure charts, and another candlestick charts. Another breed of technical analysts takes basic market data, price and volume, and uses them as the input to statistical routines that calculate everything from moving averages to mystically designated indicators like %R or Bollinger Bands (see Glossary); they are known as statistical or number-driven technical analysts. All these analysts attempt to invest or trade stocks and other financial instruments (not including options) using some form of what is called technical analysis—that is, they all take hard data that people cannot lie about, misrepresent, and manipulate, (unlike the data inputted to fundamental analysis like earnings, cash flow, sales, etc.) as input to their analysis.

Using number-driven or statistical technical analysis, these latter schools attempt, just as chart analysts do, to predict market trends and trading opportunities. This can be more than a little difficult because the stock and bond markets are behavioral markets driven by human emotion, perhaps the most important of many variables influencing price. Plus, human emotion and behavior dictates manic and depressive elements, which have not yet been quantified. Yet, some chart analysts believe they can recognize it when they see it on the charts.

In another area, the computer has yielded much more dramatic and profitable results, but that is in a model-driven market, namely the options markets. Quantitative analysts, those who investigate and trade the options markets, are a breed apart from technical analysts. In an interesting irony, emotion-driven markets, the stock markets, are used as the basis for derivatives, or options, whose price is determined largely by the operation of algorithms called “models;” for example, the Black Scholes model. Quantitative analysts believe, as does this editor, the options markets can be successfully gamed through quantitative analysis. Results of skilled practitioners indicate this belief is accurate.

Alas, life is not so simple for the simple stock trader. Stock prices having nothing to do with mathematics, except for being expressed as natural numbers, are not susceptible to easy prediction as to their future direction. Not even with Magee chart analysis or any other form of analysis—technical, fundamental, or psychic. (From a theoretical point of view, each trade made on the basis of a chart analysis should be looked at as an experiment made to confirm a probability. The experiment is ended quickly if the trend does not develop.) The fact chart analysis is not mechanizable is important. It is one reason chart analysis continues to be effective in the hands of a skilled practitioner. Not being susceptible to mechanization, counterstrategies cannot be brought against it, except in situations whose meaning is obvious to everyone, for instance, a large important Support or Resistance Level or a glaringly obvious chart formation. These days everyone looks at charts to trade even if they do not believe in their use. In these obvious cases, some market participants will attempt to push prices through these levels to profit from volatility and confusion. Indeed, human nature has not changed much since Jay Gould and Big Jim Fisk.

When these manipulations of price occur, they create false signals—Bull and Bear traps. Interestingly, the failure of these signals may constitute a reliable signal in itself—but in the direction opposite to the original signal.

The importance of computer technology

Of what use and importance then is this marvelous tool—the most interesting tool man (*homo*) has acquired since papyrus? (Numerous computer software packages available are capable of executing the functions described in the following discussion.) If the computer cannot definitively identify profitable opportunities, what good is it?

Probably the most important function the computer has for the Magee analyst is the automation of rote detail work. Data can be gathered by downloading from database servers. Charts can be called up in an instant. Portfolio accounting, maintenance, and tax preparation can be disposed of with one hand while drinking coffee with the other. All in all, this might make it sound as though the computer is a great tool, but with a pretty dull edge. Not strictly true. There is at least one great leap forward for Magee analysts with this tool, leaving aside the rote drudgery it saves. This great advantage is portfolio analysis. In *Appendix B, Resources*, a complex portfolio analysis of the kind used by professional traders (Blair Hull and Options Research Inc.) is illustrated. Even simpler portfolios of the average investor can benefit from the facilities afforded by most portfolio programs, either on the net or in commercial software packages (locations and software identified in *Appendix B, Resources*).

Another advantage is the ability to see basic data displayed in many different forms: point and figure charts, candlestick charts, close-only charts—these are prepared in the flick of an eyelash and may indeed contribute to understanding the particular situation under the magnifying glass. The effortless quantification of some aspects of analysis may be useful—volume studies, for instance, and given the popularity of moving averages, seeing the 50- and 200-day moving averages can be interesting. These moving averages are considered significant by many market participants—even fundamental analysts. The analysis of any of these should be considered in relation to the current state of the market as understood by the careful chart analyst.

But what about (the strangely named) stochastics, Bollinger Bands, %R, MACD, Moving Averages (plain vanilla, exponential, crossover, etc.), price/volume divergence, RSI (plain vanilla and Wilder), VP Trend, TCI, OBV, Upper/Lower Trading Bands, ESA Trading Bands, and AcmDis? Well, there is a certain whiff of alchemy to some of them, and some have some usefulness sometimes. What is more, all systems work beautifully at least twice in their lives: in research and in huge monumental Bull Markets. These number-driven indicators are also the times when trading genius is most likely to be discovered. (*EN9: It is also true, as I have said, that you can drive a nail with a screwdriver. And the inventor of a tool may be fabulously successful with it while its adopters lose their assets.*)

It is also possible the excess of technical information created by these indicators may be like the excess of fundamental information—another shell to hide the pea under, another magician's trick to keep the investor from seeing what is truly important, and what is necessary and sufficient to know to trade well. Perhaps the investor would be better off with a behavioral model because the markets are behavioral. Number-driven technical analysis can do many things, some like Dr. Johnson's dog, which walked on its hind legs, but they cannot put the market in perspective—only the human mind can do that. Number-driven models after all do not consider skirt lengths, moon cycles, sun spots, the length of the economic cycle, or the Bullish or Bearish state of the market (if Bear Markets still exist) (*EN9: A wry ironical comment written before the market crash of the 2000s.*) In the end, the human brain is still the only organ capable of synthesizing all this quantitative and qualitative information and assessing those elements that cannot be reduced to ones and zeros. The educated mind is still the best discriminator of patterns and their contexts.

Summary 1

The computer is a tool, a powerful tool, but a tool nonetheless. It is not an intelligent problem solver or decision maker. We use a mechanical ditch digger to dig a ditch, but not to figure out where the ditch should be.

The multitude of indicators and systems should be viewed with a skeptical eye and evaluated within the context of informed chart analysis. Sometimes an indicator or technique will work for one user or its inventor but strangely mislead the chart analyst who tries to use it—or buys it, even based on a verified track record.

Therefore, the experienced investor keeps his methods and analysis simple until he has definitive knowledge of any technique, method, or indicator he would like to add to his repertoire. Most of all, he depends on his own observations and experience to evaluate his and others' trading techniques.

Other technological developments of importance to the technical Magee analyst and all investors

The computer is not the only technological development of interest to the technical investor. A number of information revolution technologies need to be put in perspective. These are, in broad categories, the internet and all its facilities, developments in electronic markets, and advances in finance and investment theory and practice. This last is treated in the final section of this chapter.

Owing to the enormous body of material on these subjects, no attempt will be made to explore these subjects exhaustively, but the general investor will be given the information he needs to know to put these subjects in their proper perspective. Resources will point the analyst to avenues for further investigation if the need is felt.

First of all, are there any technological developments of whatever sort that have made charting obsolete? No. Are there any developments that have made trading a guaranteed success? No. The only sure thing is some huckster will claim to have a sure thing. Those who believe such claims are the victims of their own naiveté.

The Internet: the eighth wonder of the modern world (EN9: Appendix B, Resources, for the ninth edition has been enormously expanded and is of paramount importance to modern investors.)

The internet has been called the most complex project ever built by man, which is probably true. Complex, sprawling, and idiosyncratic, it has something for everyone, especially the investor. Every form of investment creature known to man has set up a site on the internet and waits like the hungry arachnid for the casual surfer: brokers and advisors—technical and fundamental; newspapers, news magazines, newsgroups, and touts; mutual funds, mutual fund advisories, critics and evaluators of all the above; database vendors, chat rooms, electronic marketplaces and exchanges, and Exchange Traded Notes (ECNs)—the only unfilled niche that seems to exist is investment pornography. Perhaps naked options will be able to satisfy this need.

This is a bewildering array of resources. How does one sort them out? The implications of all this for the electronic or cyber investor may be further expanded to indicate the services and facilities available: quotes and data; portfolio management and accounting; online interactive charting; automatic alerts to PBDAs (personal body digital assistants or gizmos carried on the body, for example, cell phones and handheld computers, and

so on); analysis and advice; electronic boardrooms; and electronic exchanges where trading takes place without intermediaries. *Appendix B, Resources*, supplies the specifics on these categories while this chapter supplies perspective. It is one thing to contemplate this cornucopia of facilities and another thing to appreciate the importance and priority of its elements. What good are real-time quotes if you are only interested in reviewing your portfolio once a week, except for special occasions? What good are satellite alerts and virtual reality glasses to a long-term investor? It is easy for the investor with no philosophy or method to be drawn into the maelstrom of electronic wonders and stagger out of it a little wiser and much poorer.

Observe then the goods and services of all of this are of importance to the levelheaded investor with his feet on the ground and his head out of the clouds (or *Cloud*). This, hopefully not, abstract investor, the object of our attention here, needs what? He needs *data*, *charts*, and *a connection to a trading place*. Data are available at the click of a mouse. A chart occupies the screen in another click. Another click and a trade is placed. In the Internet Age, it would be tautological to attempt to describe this process in prose when live demonstrations are as close as the desktop computer and an internet connection. A demonstration of this rather simple process (easy to say when one does it without thinking) may be seen at locations linked in *Appendix B, Resources*. The trade will be made, of necessity, through a broker of some sort, perhaps an electronic broker or even a non-virtual broker who communicates via telephone. This will occur shortly, if not already, an electronic pit where one matches wits with a computer instead of a market maker or specialist.

How long brokers will be necessary is a question that is up in the air in the new century. (The broker who earns his keep will always be with us, and welcome, too.) Electronic marketplaces where investors meet without the necessity of a broker or specialist are already proliferating (see *Appendix B, Resources*) and will continue to gain the advantage for the investor over the trading pit, which is one of the last remaining edges the professionals hold over off-floor traders. Suffice it to say, their initial phases will undoubtedly be periods of dislocation, risk, and opportunity as their glitches are ironed out.

Placing electronic orders, whether to an electronic exchange or to the New York Stock Exchange, has certain inherent advantages over oral orders. No one can quarrel about a trade registered electronically as opposed to orally where the potential for disagreement exists. In addition, the trader has only handled the data once—rather than making an analysis, calling a broker, recording the trade, and passing it to the portfolio. If he just hits the trade button and the transaction is routed through his software package, no one will have any doubt as to where an error might lie. The manual method presents an opportunity for error at each step. Rest assured, errors occur and can be disastrous to trading.

The efficiency and ease of the process with a computer have much to recommend it—automation of trade processing, elimination of confusion and ambiguities, audit tracks, automation of portfolio maintenance, and, perhaps most important of all, automatic mark-to-market of the portfolio (the practice of valuing a portfolio at its present market value whether trades are open or closed).

Marking-to-market

This book might have been entitled *Zen and the Art of Technical Analysis* if that title were not so hackneyed and threadbare. It conveys, nonetheless, the message of Zen in the art of archery, that of direct attachment to reality and the importance of the present moment. In his seminal book *The General Semantics of Wall Street* (now *Winning the Mental Game on Wall Street*), John Magee inveighed at some length against the very human tendency to

keep two sets of books in the head—one recording profits, open and closed, and another recording losses, but only closed losses. Open losses were not losses until booked. Having an electronic portfolio accountant that refuses to participate in such self-deception has much to recommend it. If the portfolio is always marked to the market when the computer communicates with the data vendor, or the trade broker, it is difficult not to see red ink, and to see the equity of the account reflects all trades, open and closed.

Separating the wheat from the chaff

It requires a gimlet-eyed investor to pick his way through the minefield of temptations in electronic investing and number-driven technical analysis. Playing with the toys, seeing what the pundits have to say, and fiddling with “research” can subtly replace profitable trading as the activity. Actually, almost all the research the Magee analyst *must* do is addressed in this book.

Chaff

Chat rooms, touts, news, predictions, punditry, brokerage house buy, sell, hold, strong hold, weak buy, strong buy, and any other species of brokerage house recommendation should be taken at face value. Remember, brokerage firms survive by selling securities and make their money in general on activity. Actually, much of their money is made servicing their institutional clients and distributing their clients’ shares to their retail clientele—a blatant conflict of interest that blew up in their faces in the early 2000s, resulting in many fines and some jail terms (*plus ça change ...*). In the surging Clinton–Gore Bull Markets of the 1990s, all of these worked. In a serious Bear Market, none of them will work. (*EN9: A serious Bear Market started in earnest in 2000 and was correctly identified with Magee chart analysis as may be seen from the John Magee Letters at the <http://www.edwards-magee.com>.*)

Summary 2

Never in the history of the markets have so many facilities for private investors been available. The computer is necessary to take advantage of those facilities.

Data may be acquired automatically via internet or dial-up sites at little or no cost. A (as they say) plethora of websites offer cyber investors everything from portfolio accounting to alerts sent to their personal body-carried devices (cell phones, pagers, handheld PDAs, and so on). Some of these even offer real-time data, which is a way for the unsophisticated trader to go broke in real time. Many of these sites offer every kind of analysis from respectable technical analysis (usually too complicated) to extraterrestrial channeling.

Internet chat rooms will provide real-time touting and numerous rumors to send the lemmings and impressionable scurrying hither and yon. But, one expects, not the readers of this book.

Of more importance, the information revolution and the computer will:

1. Relieve the analyst of manual drudgery, accelerate all the steps of analysis: data gathering, chart preparation, portfolio accounting, and analysis and tax preparation.
2. Give the analyst virtually effortless portfolio accounting and mark-to-market prices—a valuable device to have to keep the investor from mixing his cash and accrual accounting, as Magee says.

3. Enable processing of a hitherto unimaginable degree. An unlimited number of stocks may be analyzed. Choosing those to trade with a computer will be dealt with in [Chapter 21](#), *Selection of Stocks to Chart*.
4. Allow the investor to trade on ECNs or in electronic marketplaces where there are no pit traders or locals to fiddle with prices.

Advancements in investment technology, part 1: developments in finance theory and practice

Numerous pernicious and useless inventions, services, and products litter the internet and the financial industry marketplace; but modern finance theory and technology are important and must be taken into consideration by the general investor. This chapter will explore the minimum the moderately advanced investor needs to know about advances in theory and practice. And it will point the reader to further resources if he desires to continue more advanced study.

Instruments of limited (or non) availability during the time of Edwards and Magee included exchange traded options on stocks, futures on averages and indexes, options on futures and indexes, and securitized indexes and averages, as a partial list of only the most important instruments. Undoubtedly, one of the most important developments of the modern era is the creation of trading instruments that allow the investor to trade and hedge the major indexes. Of these, the instruments created by the Chicago Board of Trade (CBOT®) are of singular importance. These are the CBOT® DJIASM Futures and the CBOT® DJIASM Futures Options, which are discussed in greater detail at the end of this chapter. (EN9: Not so singular, perhaps. Probably of greater importance to readers of this book are the AMEX iShares, particularly DIA, SPY, and QQQ, which are instruments (ETFs) that offer the investor direct participation in the major indexes as though they were stocks.)

General developments of great importance in finance theory and practice are found in the following sections.

Options

From the pivotal moment in 1973 when Fischer Black (friend and college classmate) and his partner, Myron Scholes, published their—excuse the usage—paradigm-setting Model, the options and derivatives markets have grown from negligible to trillions of dollars a year. The investor who is not informed about options is playing with half a deck. The subject, however, is beyond the scope of this book, which hopes only to offer some perspective on the subject and guides to the further study necessary for most traders and many investors.

Something in the neighborhood of 30% or more of options expire worthless. This is probably the most important fact to know about options. (There is a rule of thumb about options called the 60–30–10 rule: 60% are closed out before expiration, 30% are “long at expiration,” meaning they are worthless, and 10% are exercised.) Another fact to know about options occurred in the Reagan Crash of 1987; the money puts bought at \$0.625 on October 16 were worth hundreds of dollars on October 19—if you could get the broker to pick up the telephone and trade them. (The editor had a client at Options Research, Inc. during that time who lost \$57 million in three days and almost brought down a major Chicago bank; he had sold too many naked puts.)

The most sophisticated and skilled traders in the world make their livings (quite sumptuous livings, thank you) trading options. Educated estimates have been made that as many as 90% of retail options traders lose money. That combined with the fact that by far

it is the general public that buys (rather than sells) options should suggest some syllogistic reasoning to the reader.

With these facts firmly fixed in mind, let us put options in their proper perspective for the general investor. Options have a number of useful functions, such as offering the trader powerful leverage. With an option, he can control much more stock than by the direct purchase of stock—his capital stretches much further. So options are an ideal speculative instrument (Exaggerated leverage is almost always a characteristic of speculative instruments.), but they can also be used in a most conservative way—as an insurance policy. For example, a position on the long security side may be hedged by the purchase of a put on the option side. (This is not a specific recommendation to do this. Every specific situation should be evaluated by the prudent investor with professional assistance as to its monetary consequences.)

The experienced investor may also use options to increase yield on his portfolio of securities. He may write covered calls or naked puts on a stock to acquire it at a lower cost (e.g., he sells out of the money put options. This is a way of being long the stock; if the stock comes back to the exercise price, he acquires the stock. If not, he pockets the premium.)

There are numerous tactics of this sort that may be *played* with options. Played because, for the general investor, the options game can be disastrous, as professionals are not playing. They are seriously practicing skills the amateur can never hope to master. Many floor traders, indeed, would qualify as idiot savants—they can compute the “fair value” of options in their heads and make money on price anomalies of 1/16, or, as they call it, a “teenie.” For perspective, the reader may contemplate a conversation the editor had with one of the most important options traders in the world who remarked casually that his fortune was built on teenies. The reader may imagine at some length what would be necessary for the general investor to make a profit on anomalies of 1/16. (*EN10: The advent of digital pricing has given market makers and specialists even more flexibility to beat the investor by shaving spreads, theoretically, to \$0.01.*)

This does not mean the general investor should never touch options; it just means he should be thoroughly prepared before he goes down to play that game. In options trading, traders speak of bull spreads, bear spreads, and alligator spreads. The alligator spread is an options strategy that eats the customer’s capital *in toto*.

Among these strategies is covered call writing. This strategy is touted as being an income producer on a stock portfolio. There is no purpose in writing a call on a stock in which the investor is long—unless that stock is stuck in a clear congestion phase that is not due to expire before the option expires. Besides, if the stock is in a downtrend, it should be liquidated, but to write a call on a stock in a clear uptrend is to make oneself beloved of the broker, whose good humor improves markedly with account activity and commission income. The outcome of a covered call on an ascending stock is that the writer (you, dear reader) has the stock called at the exercise price, losing his position and future appreciation, not to mention costs. The income is actually small consolation, a sort of booby prize—a way of cutting your profits while increasing your costs. Nevertheless, covered writes are justified and profitable in some cases.

Quantitative analysis

The investor should be aware of another area of computer and investment technology that has yielded much more dramatic and profitable results, but that is in a model-driven market—namely, the options markets. Quantitative analysts, those who investigate and trade the options markets, are a breed apart from technical analysts. In an interesting

irony, behavioral markets, the stock markets, are used as the basis for derivatives, or options whose price is determined largely by the operation of algorithms called “models.” The original model that created the modern world of options trading was the Black–Scholes options analysis model, which assumed the “fair value” of an option could be determined by entering five parameters into the formula: the strike price of the option, the price of the stock, the “risk-free” interest rate, the time to expiration, and the volatility of the stock.

The eventual universal acceptance of this model resulted in the derivatives industry we have today. To list all the forms of derivatives available for trading today would be to expand this book by many pages, and it is not the purpose of this book anyway. The purpose of this paragraph is to sternly warn general investors who are thinking of “beating the derivatives markets” to undergo rigorous training first. The alternative could be extremely expensive.

At first, the traders who saw the importance of this model and used it to price options virtually skinned older options traders and the public, who traded pretty much by the seat of the pants or the strength of their convictions, meaning human emotion. But professional losers learn fast and now all competent options traders use some sort of model or anti-model, or anti-antimodel to trade. True to form, options sellers, who are largely professionals, take most of the public’s (the buyers) money. This is the way of the world.

Options pricing models and their importance

After the introduction of the Black–Scholes model, numerous other models followed, among them the Cox–Ross–Rubinstein, the Black Futures, and others. For the general investor, the message is this: he must be acquainted with these models and what their functions are if he intends to use options. Recall, the model computes the “fair value” of the option. One way professionals make money off amateurs is by selling overpriced options and buying underpriced options to create a relatively lower risk spread (for themselves). Not knowing what these values are for the private investor is like not knowing where the present price is for a stock; it is a piece of ignorance for which the professional will charge him a premium to be educated about. Unfortunately, many private options traders never get educated, in spite of paying tuition over and over again. But ignorance is not bliss—it is expensive.

Technology and knowledge works its way from innovators and creative geniuses through the ranks of professionals and sooner or later is disseminated to the general public. By that time, the innovators have developed new technology. Nonetheless, even assuming that professionals have superior tools and technology, the general investor must thoroughly educate himself before using options. As it is not the province of this book to dissect options trading, though the reader may find references in *Appendix B, Resources*.

Here it would not be untoward to mention one of the better books on options as a starting point for the moderately advanced and motivated trader. Lawrence McMillan’s *Options as a Strategic Investment* is necessary reading. In addition, the newcomer may contact the Chicago Board Options Exchange (the CBOE) at <http://www.cboe.com>, which has tutorial software.

Futures on indexes

Futures, like options, offer the speculator intense leverage—the ability to control a comparatively large position with much less capital than the purchase of the underlying commodity or index. Futures salesmen are fond of pointing out the fact that, if you are margined at 5% or 10% of the contract value, a similar move in the price of the index will

double your money. They are often not so conscientious about pointing out a similar move against your position will wipe out your margin (actually earnest money). Unlike (long) options, a mishap in the market can result in more than the loss of margin; it can become a deficit account and debts to the broker—in other words, losses of more than 100%. For this, among other reasons, it is wise not to plunge into futures without considerable preparation. This preparation might well begin, for the adroit investor, with the reading of Schwager's *Technical Analysis, Schwager on Futures*, currently one of the better books on the subject.

Let us say that, instead of using futures to speculate, we want to use them as a hedge for our portfolio of Dow–Jones DIAMONDS (DIA) or portfolio of Dow–Jones stocks. Now we are purchasing insurance, rather than speculating. As an oversimplified example, the investor might see the failure of the DJIA to break through a top as the beginning of a congestion zone (a consolidation or reversal pattern). He could then hedge his position by shorting the Dow–Jones futures. Now he is both long and short—long the cash, short the futures. He would place a stop on the futures above his purchase price to close the trade if the market continued rising. If the market fell, he would maintain the futures position until he calculated that the reaction had passed its worst point, or until it were definitely analyzed to have reversed. He would then take his profits on the futures position (taxable), but his cash position would be intact, and presumably, the greater capital gains on those positions would be safe from taxation, and also safe from the costs, slippage, and difficulties of reestablishing the stock position.

Options on futures and indexes

Conservative as well as speculative use may be made of options. For example, the investor might, after a vigorous spike upwards, feel the Standard & Poor's (S&P) 500, or the SPYs which he is long, were overbought. He might then buy an index put on the S&P as a hedge against the expected decline. If it occurs, he collects his profit on the option and his cash position in the S&P is undisturbed. If the index continues to climb, he loses the option premium—an insurance policy he took out to protect his stock portfolio.

Note: The tactics described here are for the reader's conceptual education. Before executing tactics of this kind, or any other unfamiliar procedure, the investor should thoroughly inform himself and rehearse the procedure, testing outcomes through paper trading before committing real capital. *He must, in short, figure out how you lose.* A number of websites offer facilities of this kind, and the investor may also build on his own computer a research or paper-trading portfolio segregated from his actual transactions.

The trader might also choose to buy an option on a future. At the CBOT®, the trader can trade both options and futures on the DJIA. These can be used as the above examples for speculating or hedging, except in this case, the successful option buyer might wind up owning a futures contract instead of the cash position. This could be disconcerting to one not accustomed to the futures market, especially if large price anomalies between futures and cash occurred, as happened in 1987 and 1989 when futures prices went to huge discounts to cash. A primary reason for employing the futures would be for leverage and the reason for using the options on futures would be the analysis that uncertainty was in store and the wish to only risk the amount of the options premium.

Obviously, a speculator can choose to forget the stock or futures part of the portfolio and trade only options. Before taking such a step, the trader should pass a postgraduate course. The proportion of successful amateur option traders to successful professional traders is extremely skewed. In fact, one might say all successful options traders are professionals.

Modern Portfolio Theory

Modern Portfolio Theory (MPT) is a procedure and process whereby a portfolio manager may classify and analyze the components of his portfolio in such a way as to, hopefully, be aware of and control risk and return. It attempts to quantify the relationship between risk and return. Rather than analyzing only the individual instruments within a portfolio, MPT attempts to determine the statistical relationships among the members of the portfolio and their relationships to the market.

The processes involved in MPT analysis are as follows (1) *portfolio valuation*, or describing the portfolio in terms of expected risk and expected return; (2) *asset allocation*, determining how capital is to be allocated among the classes of instruments (bonds, stocks, and so on); (3) *optimization*, or finding the trade-offs between risk and return in selecting the components of the portfolio; and (4) *performance measurement*, or the division of each stock's risk into systemic and security-related classes.

How important is this for the general investor? Not very and there is a large question among pragmatic analysts, such as the editor, as to its pragmatic usefulness for professionals, although they cling to it as to a life ring in a shipwreck. Mandelbrot observed in articles ("A Multifractal Walk Down Wall Street") and letters in the *Scientific American* (February 1999 and June 1999) that MPT discards about 5% of statistical experience as if it did not exist (although it [the experience] does). He also observed the ignored experience includes 10-sigma market storms that are blamed for portfolio failures as though it were the fault of the data instead of the fault of the process.

The wonders and joys of investment technology

Are there any other innovations in finance and investment theory of which the general investor should be aware? (See [Chapter 42](#) for discussion of Value at Risk and Pragmatic Portfolio Theory.) Well, it never hurts to know everything, and the very best professionals not only are aware of everything, but also are in the constant process of finding new wrinkles and glitches and anomalies. Though, as Magee would ask, what is necessary and sufficient to know (see *Winning the Mental Game on Wall Street*)? Absolute certainty is the hallmark of religious extremists and the naïve, who do not know what they do not know. So I will remark that *probably* this book contains either what is necessary and sufficient for the investor to know about these matters or guides the reader to further study.

Not to mention, *nota bene*, any number of little old ladies with a chart, a pencil, a ruler, and previous editions of this book have beaten the pants off professional stock pickers with supercomputers and MPT and Nobel Laureates and who knows what other resources. I personally know investment groups that have thrown enormous resources into the development of real-time systems that, in research, were 100% successful in beating the market. The only real glitch was the systems required so much computer power they could not be run quickly enough in real time to actually trade in the markets. Philosopher's stone *redux*.

Advancements in investment technology, part 2: futures and options on futures on the Dow–Jones Industrial Index at the CBOT

(EN9: The general investor must be aware that the methods and techniques described in this chapter are for advanced practitioners. Careless use of the described instruments can be extremely damaging to a portfolio.)

Investment and hedging strategies using the CBOT® DJIASM futures contract

A futures contract is the obligation to buy or sell a specific commodity on or by some specified date in the future. For example, if one went long corn futures, he would be obligated to accept delivery of corn on the delivery date, unless he sold the contract before the settlement date. Shorting the contract would obligate the seller to deliver corn unless he offset (by repurchase) the contract. The “commodity” in our present case is the basket of stocks represented by the DJIA futures index. All futures contracts specify the date by which the transaction must conclude, known as the “settlement date,” and how the transaction will be implemented, known as “delivery.” The DJIA futures contract price closely tracks the price of the Dow–Jones Industrials as computed from stock market values.

The value of the future is found by multiplying the index price of the futures contract by \$10.00. For example, if the futures index price is 10,000, the value of the contract is $10,000 \times \$10.00 = \$100,000$. So the buyer or seller of the futures contract is trading approximately \$100,000 worth of stocks at that Dow futures level. The value may be higher or lower owing to several factors, for example, cost of carry, which will be discussed below.

Settlement of futures contracts

All futures contracts must be “settled.” Some futures are settled by delivery, the famous nightmare of finding 5,000 bushels of soybeans delivered on your front lawn. Dow Index futures “settle” (are delivered) in cash. The short does not dump a basket of Dow stocks on the yard of the long. Thus, on the settlement date of the contract, the settlement price is \$10.00 times a figure called the “Special Opening Quotation,” a value calculated from the opening prices of the member stocks of the Dow Future following the last day of trading in the futures contract. This value is compared with the price paid for the contract when the trade initiated. For example, if the Dow Future is 10,000 at expiration, a long who bought the contract at 9,000 receives \$10,000 ($\10.00×1000) from the short.

Marking-to-market

This \$10,000, however, is paid daily over the life of the contract, rather than in one payment upon expiration of the contract. It is paid as successive daily “margin” payments. These payments are not really margin but are in effect “earnest money” or a performance bond. The practice of squaring up accounts at the end of every day’s trading is called “marking-to-market.” These daily payments are determined based on the difference between the previous day’s settlement price and the contract settlement price at the close of trading each day.

As a practical example, if the settlement price of June Dow Index futures increases from 9,800 to 9,840 from May 17 to May 18, the short pays \$400 ($\10.00×40) and the long’s account is credited \$400. If the futures settlement price decreases 10 points the following day, the long pays \$100 to the short’s account—and so on each day until expiration of the contract, when the futures price and the index price achieve parity.

At any time, the trader can close his position by offsetting the contract, that is, by selling to close an open long, or buying to close an open short. At the expiration date, open contracts are settled in cash at the final settlement price.

Fungibility

One of the great contributions of the great established exchanges like the CBOT® and the Chicago Mercantile Exchange is their institutionalization of contract terms and relationships

is known as “fungibility.” Any one futures contract for corn, or an index, or any other commodity is substitutable for another of the same commodity. Similarly, the Exchange has negated counterparty risk by placing a Clearing Corporation between all parties to trades. Thus, even if the other party to a trade went broke, the Clearing Corporation would assume his liability and, using the mechanism of daily settlement, whereby losers pay winners daily, the danger of major default is avoided.

Futures “margins” (or “earnest money”) are deposited with the broker on opening a trade. The leverage obtainable is quite extreme for a stock trader. The initial margin is usually 3%–5% of the total value of the contract. Each day thereafter, margins vary according to the process described above of marking-to-market.

As the reader can see, the purchase or sale of a Dow Future is the equivalent of a fairly large portfolio transaction, with the understanding it is a transaction that will be closed in the future, unlike a stock purchase, which may be held indefinitely.

Differences between cash and futures

The main two differences between the cash and the futures transactions are as follows:

1. In cash, the value of the portfolio must be paid up front or financed in a stock margin account.
2. The owner of the cash portfolio receives cash dividends.

These are not the only differences. The leverage employed in the futures transaction is a two-edged sword. If the trader has no reserves, a minor move in the index wipes him out. Such a minor move would be barely noticed by the owner of a cash portfolio.

Dow Index futures

The price of the future and the price of the index are closely linked. Any price anomaly is quickly corrected by arbitrageurs. On any significant price difference, arbitrageurs will buy the underpriced and sell the overpriced, bringing the relationship back in line. Their prices are not exactly the same because the futures contract value must reflect the costs of short-term financing of stocks and the dividends paid by index stocks until futures expiration, known as the “cost of carry.” The “theoretical value” of the future should equal the price of the index plus the carrying cost, what is called the “fair” or “theoretical” value.

Using stock index futures to control exposure to the market

The owner of a cash portfolio in the Dow, or of DIAMONDS, can control his exposure, his risk, by using futures to hedge. If, for example, he is pessimistic about the market, or more to the point, a lot of uptrend lines have been broken and the technical situation seems to be deteriorating, he can sell a futures contract equivalent to his portfolio and be flat the market.

Readers will immediately recognize the advantages of this strategy. Tax consequences on the cash portfolio are avoided, as are the other negative consequences of trading—slippage, errors, and so on. Long-term positions are better left alone. By flattening his position, the investor has now insured the future value of his portfolio, *and* the capital involved is now earning the money market rate of return.

What happens if the forecast market decline occurs? The portfolio is protected from loss and the capital earns the market rate of return; however, the investor should monitor his hedge closely, lifting it when he calculates the correction has run its course. Taxes will then be due on the profits on the hedge.

In monitoring the hedge, the possibility the market rises instead of falls must be considered. In planning the hedge in the first place, the investor must plan for this eventuality and determine at which point he will lift the hedge on the losing side. At worst, the investor has surrendered portfolio appreciation. Not considering cash flow implications.

It is worth emphasizing, in fact *strongly* emphasizing, that these techniques require knowledge, expertise, and study. Careless use of techniques of this nature can bloody the amateur investor. Hence, it is probably best to have a professional guide for the first several of these expeditions and to execute first a number of paper transactions.

The canny investor can increase his exposure to the market and the risk to his capital by buying index futures. But the canny investor must be careful not to turn into a burned speculator. Futures trading, because of the extreme leverage, is an area for dedicated and experienced speculators.

A Dow futures transaction costs less than if you had to buy or sell a whole basket of stocks. Professional fund managers—as well as other professionals—regularly use futures for asset allocation and reallocation. In all likelihood, they are not using the extreme leverage afforded by futures. In other words, if they have a \$1 million cash portfolio, they do not buy \$10 million worth of futures. It is not the leverage in which they are interested, but rather it is the extreme convenience and agility offered by doing short-term allocations in futures. The ability to almost instantaneously move in and out of the market without disturbing the underlying portfolio is a powerful feature of these “proxy markets.”



Figure 17.3 Diamonds and Futures. The 2% plus break at the arrow of an 11-month trendline is an unmistakable invitation to hedge the DIAMONDS by shorting the futures. Profits on the short would have offset losses in the DIAMONDS. This convenient drill would have preserved liquidity, postponed capital gains taxes, and avoided loss of equity. Notice the return to the trendline after the break. More of the foolish virgin syndrome?

Investment uses of Dow Index futures

The following examples describe the basic mechanics of using Dow futures contracts. These can be used to adjust equity exposure in anticipation of volatile market cycles and to rebalance portfolios among different asset classes. The futures also may be used for other purposes not illustrated here. The following examples are not intended to be absolutely precise, but only to illustrate the mechanics involved. For the sake of simplicity, mark-to-market payments and cost of carry have been eliminated from the examples.

Situation 1: Portfolio protection

You are a long-term Magee-type investor and you have old and profitable positions with which you are satisfied. Yet, you have seen the broadening top of the Dow Jones (ca. 2000) and it is almost October, so you would not be surprised to see a little bloodshed. You have \$400,000 in the Dow and \$100,000 in money market instruments. You decide to reverse this ratio, but you do not want to liquidate the Dow portfolio, as there is no sign of a confirmed downtrend, only that of consolidation. You sell \$300,000 of index futures, leaving yourself with a \$100,000 kicker in case you are wrong about the market's declining. At the time, the market is 10,000 and the futures are 10,500, meaning the cost of carry is approximately 0.5% ($10,500/10,000 - 1$).

You sell three futures contracts [$\$300,000/(\$10 \times 10,000)$]. You now have reversed your position and are long \$100,000 Dow stocks and long \$400,000 money market equivalents.

Validating your technical analysis, the market has begun to swing in broad undulations and, at the expiration of the futures, the Dow is at 10,000. On your stocks, you have a return of -0.5%, and the money market position has a rate of return of 0.5%.

What would have been the situation had you not hedged?

Stock Portfolio $\$400,000 \times 0.95$	\$380,000
Money Market $+ 100,000 \times 1.005$	\$100,500
Total	\$480,500

How the futures position affects the portfolio:

Short three futures $3 \times \$10.00 \times (10,000 - 9,500)$	+\$15,000
Total	\$495,000

Value of portfolio with reallocation of assets in cash market:

Stocks $\$100,000 \times 0.95$	\$95,000
Money market $+ \$400,000 \times 1.005$	\$402,000
Total	\$497,000

By hedging in the futures market, you now have the equivalent of a \$100,000 investment in Dow futures stocks and a \$400,000 investment in the money market instrument. The stock market decline now affects only \$100,000 of your stock portfolio rather than \$400,000; in addition, you earn a money market rate of return of 0.5% on the \$300,000 difference.

Without the futures transaction, the portfolio is worth \$480,500. The \$15,000 profit on the short futures position offsets the loss on the \$300,000 of the portfolio that was moved out of equities by the short futures position. In brief, by selling futures, you are able to protect \$300,000 of your initial portfolio value from a stock price decline, nearly breaking

even, an achievement given these market conditions. Had you been more confident of the market decline, you might have completely neutralized the equity risk on the portfolio by selling more futures contracts. This would have converted the entire stock position to a \$400,000 investment in the money market. The amount of protection you should obtain depends on your assessment of the market and your tolerance for risk.

Situation 2: Increasing exposure with futures

Now let us look at the other side of the coin. The market has come off its highs in a predictable and controlled secondary reaction and your technical analysis is that the Bull Market will continue. At 10,000, it appears headed for 11,000, and you want to increase your commitment. Your portfolio is as previously described, split 80/20 between Dow stocks and money markets. It is time to go whole hog, you decide. You are acutely aware of the market maxim (bulls make money and bears make money and hogs wind up slaughtered), but there is also a market maxim that no market maxim is true 100% of the time, which is also true of this maxim.

Rather than liquidate your money market holdings, you buy one futures contract, which puts you long another \$100,000 of stocks. The rate of return on the money markets in your portfolio is 0.5%. To get a \$500,000 exposure in blue chips, you buy the following number of contracts: $\$100,000/(\$10 \times 10,000) = 1$ contract.

Results: Your technical analysis of the direction of the market is correct, and the Dow future rises to 11,000 at the September expiration, or by 10%.

Value of portfolio with passive management:

Stocks	$\$400,000 \times 1.10$	\$440,000
Money market+	$\$100,000 \times 1.005$	\$100,500
Total		\$540,500

Value of portfolio with futures position:

Long DJIA futures $1 \times \$10.00 \times (11,000 - 10,000)$	\$10,000
Total	\$550,500

Value of portfolio with reallocation of assets in cash market:

Stocks $\$500,000 \times 1.10$	\$550,000
Money market	\$0
Total	\$550,000

In buying Dow Index futures, you are able to “equitize” \$100,000 of your money market investment, effectively increasing your return from the money market rate of 0.5%–10%. If you had not bought futures, the total value of your portfolio at the September expiration would have been \$540,500 instead of \$550,500. Not only do you have a \$10,000 extra gain in your portfolio, but also you have taken advantage of the market’s continuing upward climb without having to adjust your portfolio.

Situation 3: Using bond and index futures for asset allocation

Speculation in bonds can be quite profitable, notwithstanding David Dreman’s assertion that long-term investments in bonds are net losers. (EN9: *An oversimplification of a sophisticated*

thesis by an important figure.) Subsequently, it is not unusual for an investor to have both bonds and stocks in his portfolio. In this event, the portfolio can be managed with facility by using both Index futures and Treasury bond futures.

Many investors consider it prudent to reallocate their capital commitments based on inflation rates, interest rates, and the reported expression on Alan Greenspan's (or Bernanke's) face before congressional testimony.

An efficient and inexpensive way to reallocate assets between stocks and bonds is to put on spreads of Treasury bond futures and Dow Index futures.

Analysis of recent long- and medium-term trends in the market, however, has led you to consider increasing your equity portfolio and decreasing your bond portfolio. You have \$200,000 invested in Dow stocks and \$200,000 invested in Treasury bonds. You would like to take advantage of the sustained market rally by increasing your equities exposure to 75% and decreasing your bond holdings to 25%.

As for tactics, you can reallocate both sides of your portfolio—buying \$100,000 of stocks and selling \$100,000 of bonds—with the sale of Treasury bond futures and the purchase of Dow Index futures.

The Treasury bonds in your portfolio have a market price of 103–20. The price of September Treasury bond futures is 102–20 per \$100 of face value, and \$100,000 of face value must be delivered against each contract. The value of the Dow futures is 10,000, and the price of the Dow Index futures contract is 10,000 (ignoring the cost of carry).

The number of T-bond futures to sell is: short T-bond futures: $\$100,000 / (102 - 20 \times \$1,000) = 1$ (number of futures is rounded to the nearest whole number). The number of stock index futures to buy is as follows: long stock index futures: $\$100,000 / (\$10.00 \times 10,000) = 1$ (number of futures is rounded to the nearest whole number).

Results: at the September futures expiration, the value of the Dow future is 11,000, a rate of return of 10%, and the market value of the bonds is 101–08, a rate of return of –1%.

Portfolio value with no market action taken:

Stocks	$\$200,000 \times 1.10$	\$220,000
Money market	$\$200,000 \times 0.99$	\$198,000
Total		\$418,000

Value of futures positions:

Long Dow futures	$\$10 \times 1 \times (11,000 - 10,000)$	\$10,000
Short bond futures	$+\$1000 \times 1 \times (102-20 - 101-08)$	\$1375
Total		\$11,375
Grand total		\$429,375

Value of portfolio had transaction been done in cash market:

Stocks	$\$300,000 \times 1.10$	\$330,000
Bonds	$+\$100,000 \times 0.99$	\$99,000
Total		\$429,000

By this simple maneuver, you have quickly and easily changed your market posture to add an additional \$100,000 exposure to stocks and subtract \$100,000 exposure to bonds.

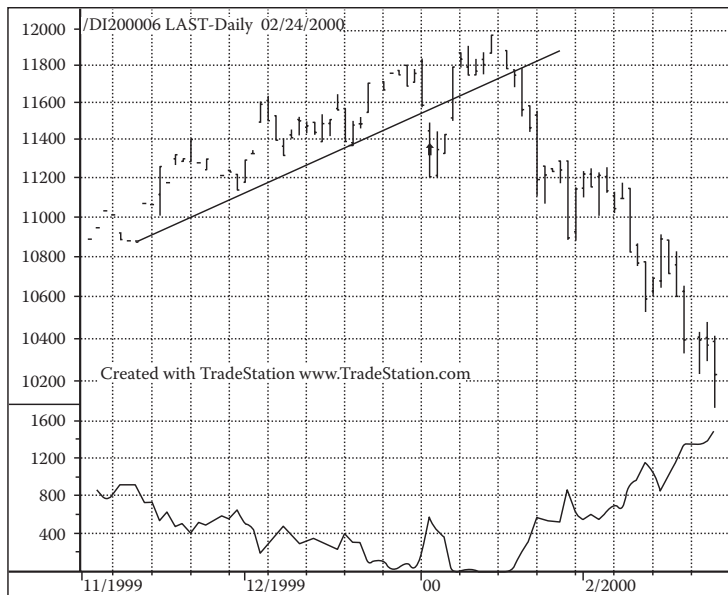


Figure 17.4 Dow-Jones Futures and Options. A put purchased at the arrow on the break would have protected patiently won gains over the previous 11 months. The increase in the value of the put can be seen as futures track declining Dow cash. A theoretical drill, but theoretical drills precede actual tactics in the market.

Having correctly analyzed market trends, your action results in an increase in portfolio value from \$418,000 to \$429,375. You could have accomplished the same result by buying and selling bonds and stocks, but not without tax consequences and the attendant transaction headaches. The use of futures to accomplish your goals allowed you to implement your trading plan without disturbing your existing portfolio.

Perspective

Although there can be no argument about the importance of CBOT® DJIASM Index futures—they are markets of enormous usefulness and importance—there can also be no doubt the futures novice should thoroughly prepare himself before venturing into these pits. In such a highly leveraged environment, mistakes will be punished much more severely than an error in the stock market. By the same token, ignorance of this vital tool is the mark of an investor who is not serious about his portfolio, or who is less intense in his investment goals. “They” (the infamous “they”) use all the weapons at their disposal; so should “we.”

Options on Dow Index futures

The buyer of this instrument has the choice, or the right, to assume a position. It is his *option* to do so—unlike a futures contract in which he has an *obligation* once entered. There are two kinds of options: calls (the right to buy the underlying instrument) and puts (the right to sell). Also, options can be bought (long) or sold (short) like futures contracts.

A long call option on Dow Index futures gives the buyer the right to buy one futures contract at a specified price which is called the “exercise” or “strike” price. A long put option

on Dow Index futures gives the buyer the right to sell one futures contract at the strike price. For example, a call at a strike price of 10,000 entitles the buyer to be long one futures contract at a price of 10,000 when he exercises the option. A put at the same strike price entitles the buyer to be short one futures contract at 10,000. The strike prices of Dow Index futures options are listed in increments of 100 index points, giving the trader the flexibility to express his opinions about upward or downward movement of the market.

The seller, or writer, of a call or put is short the option. Effectively selling a call makes the writer short the market, just as selling a put makes the writer long the market. As in a futures contract, the seller is obligated to fulfill the terms of the option if the buyer exercises. If you are short a call, and the long exercises, you become short one futures contract at 10,000. If you are short one put and the long exercises, you become long one futures contract at 10,000.

Buyers of options enjoy fixed risk. They can lose no more than the premium they pay to go long an option. On the other hand, sellers of options have potentially unlimited risk. Catastrophic moves in the markets often bankrupt imprudent option sellers.

Option premiums

The purchase price of the option is called the option premium. The option premium is quoted in points, each point being worth \$100. The premium for a Dow Index option is paid by the buyer at initiation of the transaction.

The underlying instrument for one CBOT® futures option is one CBOT® DJIASM futures contract; so the option contract and the futures contract are essentially different expressions of the same instrument, and both are based on the Dow–Jones Index.

Options premiums consist of two elements: intrinsic value and time value. The difference between the futures price and strike price is the intrinsic value of the option. If the futures price is greater than the strike price of a call, the call is said to be “in-the-money.” In fact, you can be long the futures contract at less than its current price. For example, if the futures price is 10,020 and the strike price is 10,000, the call is in-the-money and immediate exercise of the call pays \$10.00 times the difference between the futures and strike price, or $\$10 \times 20 = \200 . If the futures price is less than the strike price, the call is “out-of-the-money.” If the two are equal, the call is “at-the-money.” A put is in-the-money if the futures price is less than the strike price and out-of-the-money if the futures price is greater than the strike price. It is at-the-money when these two prices are equal.

Since a Dow Index futures option can be exercised at any date until expiration, and exercise results in a cash payment equal to the intrinsic value, the value of the option must be at least as great as its intrinsic value. The difference between the option price and the intrinsic value represents the time value of the option. The time value reflects the possibility that exercise will become more profitable if the futures price moves farther away from the strike price. Generally, the more time until expiration, the greater the time value of the option because the likelihood of the option becoming profitable to exercise is greater. At expiration, the time value is zero and the option price equals the intrinsic value.

Volatility

The degree of fluctuation in the price of the underlying futures contract is known as “volatility” (see Appendix B, Resources, for the formula). The greater the volatility of the futures, the higher the option premium. The price of a futures option is a function of the *futures price, the strike price, the time left to expiration, the money market rate, and the volatility*

of the futures price. Of these variables, volatility is the only one that cannot be observed directly. Considering all the other variables are known, however, it is possible to infer from option prices an estimate of how the market is gauging volatility. This estimate is called the "implied volatility" of the option. It measures the market's average expectation of what the volatility of the underlying futures return will be until the expiration of the option. Implied volatility is usually expressed in annualized terms. The significance and use of implied volatility is potentially complex and confusing for the general investor, professionals having a decided edge in this area. Their edge can be removed by serious study.

Exercising the option

At expiration, the rules of optimal exercise are clear. The call owner should exercise the option if the strike price is less than the underlying futures price. The value of the exercised call is the difference between the futures price and the strike price. Conversely, the put owner should exercise the option if the strike price is greater than the futures price. The value of the exercised put is the difference between the strike price and the futures price.

To illustrate, if the price of the expiring futures contract is 7,600, a call struck at 7,500 should be exercised, but a put at the same or lower strike price should not. The value of the exercised call is \$1,000. The value of the unexercised put is \$0.00. If the price of the expiring futures contract is 7,500, a 7,600 put should be exercised but not a call at 7,600 or a higher strike. The value of the exercised put is \$1,000 and that of the unexercised call is \$0.00.

The profit on long options is the difference between the expiration value and the option premium. The profit on short options is the expiration value plus the option premium. The expiration values and profits on call and put options can often be an important tool in an investment strategy. Their payoff patterns and risk parameters make options quite different from futures. Their versatility makes them good instruments to adjust a portfolio to changing expectations about stock market conditions. Moreover, these expectations can range from general to specific predictions about the future direction and volatility of stock prices. Effectively, there is an option strategy suited to virtually every set of market conditions.

Using futures options to participate in market movements

Traders must often react to rapid and surprising events in the market. The transaction costs and price impact of buying or selling a portfolio's stocks on short notice inhibit many investors from reacting to short-term market developments. Shorting stocks is an even less palatable option for average investors because of the margin and risks involved and semantical prejudices.

The flexibility that options provide can allow one to take advantage of the profits from market cycles quickly and conveniently. A long call option on Dow Index futures profits at all levels above its strike price. A long put option similarly profits at all levels below its strike price. Let us examine both strategies.

Profits in rising markets

In August, the Dow Index is 10,000 and the Dow Index September future is 10,050. You expect the current Bull Market to continue, and you would like to take advantage of the trend without tying up too much capital and also undertake only limited risk.

You buy a September call option on Dow Index futures. These options will expire simultaneously with September futures, and the futures price will be the same as the cash index at expiration.

Your analysis is bullish, so the 10,500 call (out-of-the-money strike price) is a reasonable alternative at a quoted premium of 10.10. You pay \$1,010 for the call ($\100×10.10).

The payoff: at the September expiration, the value of the Dow Future is 10,610. Now, your call is in-the-money, and you exercise it and garner the exercise value less the premium, or $\$90.00 = \$10.00 \times (10,610 - 10,500) - \$100 \times (10.10) = \$1,100 - \$1,010$. If the Dow future stays at or below 10,500, you let the call expire worthless and simply lose the premium. This is the maximum possible loss on the call. If the Dow future increases by 101 points above the strike price, you break even.

Instead of buying the call option, the trader could have invested \$100,500 directly in the Dow stocks. Given a value of the Dow future of 10,110 in September, he would have had a gain of \$3,030. If he had invested directly in the stocks, however, an unexpected market decline would have led to a loss.

Exploiting market reversals

The trader expects a reversal of the Bull Market now at 7,800 and would like some downside protection.

He buys a put with a strike price of 7,700 (out-of-the-money). The put premium is 9.80, for a total cost of $\$980 = \100×9.80 . If the Index decreases to 7,600, with a corresponding decrease in the futures contract in September, the put is worth \$1,000. The maximum loss is the premium cost, which is lost if the Dow future is above 7,700 at expiration. The trader breaks even if the Dow future decreases by 98 points below the strike price.

Using puts to protect profits in an appreciated portfolio

During a sustained Bull Market, investors often search for ways to protect their paper profits from a possible market break. Even when fundamental economic factors tend to support a continued market upside, investors have to guard against unpredictable “technical market corrections” and market over-reactions to news.

Selling stocks to reduce downside risk is costly in fees and taxes and sacrifices potential price gains. What is desirable in a sideways market environment is an instrument that protects the value of a portfolio against a market drop but does not constrain upside participation. This is precisely what put options are designed to do.

Situation 1

The market is in an uptrend in August, which is when the market lives with the anxiety the Federal Reserve will tighten short-term interest rates further in the coming months. The trader has \$78,000 invested in the Dow portfolio, and the Dow Future is at 7,800.

To hedge his portfolio, he purchases a put option on September futures against a possible market downturn. He buys a 7,600 put at a premium of 6.60, cost $\$100 \times 6.60 = \660 .

Buying the put places a floor on the value of the portfolio at the strike price. Buying a put with a strike price of 7600 effectively locks in the value of the portfolio at \$76,000. Above its strike price, a put is not exercised and the portfolio value is unconstrained. If the trader is wrong, and the market goes up, he loses the premium paid for the put. Depending on which strike price he chooses, he increases or decreases downside risk. He breaks even when the

Dow future reaches a value of $7,534 = 7,600 - 66$, the strike price less the put premium. At this level, the unprotected and put-protected portfolios are equally profitable.

The similarity to life insurance is striking. If you do not die, the premium is wasted. But if you do...

Improving portfolio yields

Situation 2

All markets, as the reader is perhaps aware, are not trending. Days, weeks, months, sometimes years can pass while the markets grind up and down in what are euphemistically known as trading range markets. When the astute technician identifies one of these market doldrums and judges that it will continue, he can reap other returns on his portfolio by selling puts and calls on Dow Index futures.

For example, when the Dow Index is 10,000 and the trader calculates it will not break out for the next month above 10,200, he sells calls at a strike price of 10,200. The quoted premium of the 10,200 call is, say, 10.10; selling a 10,200 call generates \$1010 income.

The trader pockets the entire premium as a profit if the index remains below 10,200 at the September expiration. The downside of this trade is that the trader gives up price appreciation above 10,200. Above 10,200, the combined value of the portfolio and short call premium is \$101,010. The break-even point is 10,301, where the Dow Future is equal to the sum of the strike price and call premium. Above this point the covered call portfolio becomes less profitable than the original portfolio. Since the short call is covered by the portfolio, this strategy is not exposed to the risk represented by a naked call. The main risk is the trader giving up the profit potential above the strike price of the call. As is obvious to the technician, this is a bad strategy in trending markets. Only in clearly range-bound markets would an enlightened trader want to write covered calls. The call premium collected is some compensation for this risk, but cold comfort when the trader has misanalyzed the market. The best strike price of the call depends on the probabilities you have assigned to future increases and behavior of the Dow.

Using option spreads in high- or low-volatility markets

Long and short stock positions reflect definite market opinions or analyses. The market will go up or the market will go down and the moderately competent technician should be right about this more often than the unwashed general public. In markets of coiling volatility (i.e., lower than average volatility and declining), it is sometimes possible to exploit uncertainty by putting on a long straddle. The long straddle combines a long put and a long call at the same strike price. This spread generates a return over two ranges of market values: values below the strike price of the put and values above the strike price of the call. It is a profitable strategy given sufficient volatility; the editor's company used such a strategy immediately before the crash of 1987 for managed accounts and collected disproportionate profits on a very low-risk position. Experienced speculators and traders generally sell high-volatility markets and try to backspread (go long) in chosen less-volatile markets, expecting volatility to return to the mean. Sometimes they do this by writing a short straddle, a position with a short put and a short call at the same strike price.

Situation 3

In August, a technical analysis predicts that volatility will increase, and the market is in a coiling process. The direction of prices is uncertain but potentially explosive. The trader

buys a straddle of a long put at 7,800 and a long call at 7,800. The quoted call premium is 18.90 and the quoted put premium is 13.90. The total cost of the straddle is $\$3280 = \100×32.80 . This is the maximum loss if the Dow Future stalls at 7,800.

The straddle makes a profit when the Dow Future moves enough to recover the cost of the straddle, either below $7,472 = 7,800 - 328$ or above $8,128 = 7,800 + 328$. The potential upside profit is unlimited. The maximum profit on the downside is $\$10.00 \times (7,800 - 328)$, or $\$74,720$, if the Dow future goes to zero (somewhat unlikely, but one never knows what Chicken Little the investor will do if he thinks the sky is falling).

Situation 4

In August, the investor calculates options are overvalued and volatility will be lower than implied volatility. He expects a dormant market to continue through the end of the summer. He decides to sell the September put and call at 7,800, collecting $\$3,280$. The return on this short straddle will turn negative if the Dow future in September goes below 7,472 or above 8,128. The maximum loss on the downside is $\$10.00 \times (7,800 - 328)$, or $\$74,720$, and the loss on the upside is unlimited. The investor, however, perceives the risk as limited because he believes the Dow future will neither increase nor decrease to these levels within the next month when the options expire. In these cases, the trader must also consider catastrophic risk—as, for example, the editor's client who was short puts in the crash of 1987 and lost $\$57$ million.

Perspective

(EN9: Once again, do not practice the methods and techniques described in this chapter without complete confidence in their use. A course in futures and options is recommended, or professional consultation.)

I like to tell these stories so prospective options traders and general investors are made dramatically aware of the potential dangers, as well as the potential profits. As stated elsewhere in this book, the novice should work to achieve competence and experience before attempting advanced tricks in futures and options. On the other hand, the investment use of these instruments for prudent hedging and insurance is recommended to the investor willing to do his homework, acquire competence, and grow in investment skills.

Dow Index futures and futures options present new techniques of portfolio protection and profit-making for the general investor. Numerous strategies can be practiced by the moderately competent investor using these instruments. Keep in mind always that all the methods of analytical investing espoused in this book are the base discipline—that is, knowledge of the instruments and their use, prudent trade management, stop-loss discipline, and close attention to the dynamics of the situation. Above all, the existence of these instruments allows the most conservative of investors insurance and hedging techniques not previously available.

In summation, knowledge of the DJIA futures and options on futures is absolutely essential for the competent technical investor and trader.

Recommended further study

In view of the importance of this chapter, noted here are references to advanced material, which are also found in *Appendix B, Resources*.

The CBOE has a website explaining the math behind hedging. To hedge a portfolio of \$500,000 tracking the S&P 500, you need four puts. The address for the calculation of the hedging ratio is available at <http://www.cboe.com/portfoliohedge>.

For further study, see the following:

- *Options as a Strategic Investment* by Lawrence Macmillan, <http://www.optionstrategist.com>
- Chicago Board Options Exchange, <http://www.cboe.com>
- Chicago Board of Trade, 312-435-3558 or 800-THE-CBOT; 312-341-3168 (fax); <http://www.cbot.com>

part two

Trading tactics

Midword

As a kind of foreword to Section II of this book, we might mention a commentary, “On Understanding Science: An Historical Approach,” by James Bryant Conant, president emeritus of Harvard.

Dr. Conant points out that, in school, we learn science is a systematic collection of facts that are classified in orderly array, broken down, analyzed, examined, synthesized, and pondered; and then lo! a Great Principle emerges—pat, perfect, and ready for use in industry, medicine, or what-have-you.

He further points out that all of this is a mistaken point of view held by most laymen. Discovery takes form little by little, shrouded in questioning, and only gradually assumes the substance of a clear, precise, well-supported theory. The neat tabulation of basic data, forming a series of proofs and checks, does not come at the start but much later. In fact, it may be the work of other men entirely, men who, being furnished with the conclusions, are then able to construct a complete, integrated body of evidence. Theories of market action are not conceived in a flash of inspiration; they are built, step by step, out of the experience of traders and students, to explain the typical phenomena that appear over and over again through the years.

In market operations, the practical trader is not concerned with theory as such. The neophyte's question, “What is the method?” probably means, actually, “What can I buy to make a lot of money easily and quickly?” If such a trader reads this book, he may feel there is “something in it.” He may feel “It's worth a try” (a statement, incidentally, that reflects little credit on his own previous tries). He may also start out quite optimistically, without any understanding of theory or any experience in these methods, and without any basis for real confidence in the method.

In such cases, the chances are great he will not immediately enjoy the easy success he hopes for. His very inexperience in a new approach will result in mistakes and failures. Yet, even with the most careful application of these methods, in correctly entered commitments, he may encounter a series of difficult market moves that may give him a succession of losses. Whereupon, having no solid confidence in what he is doing, he may sigh, put the book back on the shelf, and say, “Just as I thought. It's no damn good.”

Now, if you were about to go into farming for the first time, you might be told (and it would be true) the shade tobacco business offers spectacular profits. But you would not expect to gain these profits without investing capital, without studying how shade tobacco is grown and in what kinds of soils and what localities, nor without some experience with

the crop. Furthermore, you would need confidence—faith in the opportunity and also in the methods you were using. If your first season's crop were blighted (and these things do happen), you would naturally be disappointed. If it should happen that your second year's crop were destroyed by a hailstorm, you would be hurt and understandably despondent. Moreover, if your third season's crop were to be a total loss because of drought, you would probably be very gloomy indeed (and who could blame you?). But you would not say, "There's nothing to it. It's no damn good."

You would know (if you had studied the industry and the approved cultivation methods) that you were right, regardless of any combination of unfavorable circumstances, and you would know the ultimate rewards would justify your continuation, no matter how hard the road, rather than turn to some easier but less potentially profitable crop.

So it is with technical methods in the stock market; anyone may encounter bad seasons. The Major Turns inevitably will produce a succession of losses to Minor Trend operators using the methods suggested in this book. There will also be times when a man who has no understanding of basic theory will be tempted to give up the method entirely and look for a "system" that will fit into the pattern of recent market action nicely, so he can say, "If I had only averaged my trades ... If I had followed the Dream Book ... If I had taken Charlie's tip on XYZ ... If I had done it this way or that way, I would have come out with a neat profit."

It would be better, and safer, to understand at the start that no method ever devised will unfailingly protect you against a loss, or sometimes even a painful succession of losses. You should realize what we are looking for is the probability inherent in any situation. Likewise, just as you would be justified in expecting to draw a white bean from a bag which you knew contained 700 white beans and 300 black beans (even though you had just drawn out 10 black beans in succession!), so too you are justified in continuing to follow the methods that, over long periods, seem most surely and most frequently to coincide with the mechanism of the market.

Thus, this book should not be given a quick "once-over" and adopted straightaway as a sure and easy road to riches. It should be read over and over, a number of times, and it should be consulted as a reference work. Furthermore, and most importantly, you will need the experience of your own successes and failures so you will know what you are doing is the only logical thing you can do under a given set of circumstances. In such a frame of mind, you will have your portion of successes and your failures, which you can take in stride, as part of the business, will not ruin either your pocketbook or your morale.

In short, the problem stated and analyzed through this whole volume is not so much a matter of "systems" as it is a matter of philosophy. The end result of your work in technical analysis is a deep understanding of what is going on in the competitive free auction, what is the mechanism of this auction, and what is the meaning of it all. Be mindful this philosophy does not grow on trees; it does not spring full-bodied from the sea foam either. It comes gradually from experience and from sincere, intelligent, hard work.

Section II of this book, which follows, is concerned with tactics. Up to this point, we have been studying the technical formations and their consequences. We should have a good general understanding of what is likely to happen after certain manifestations on the charts. Knowing that, however, we will still need a more definite set of guides as to when and how it is best to execute this or that sale.

These chapters are based on one man's experience and his analysis of thousands of specific cases. It takes up questions of method, of detail, and of application, and should provide you with a workable basis for your actual market operations. As time goes on, you will very likely adopt refinements of your own or modify some of the suggested methods

according to your own experience. However, the authors feel the suggestions made here will enable you to use technical analysis in an intelligent and orderly way that should help to protect you from losses and increase your profits.

John Magee



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chapter eighteen

The tactical problem

(EN: In this chapter, Magee addresses the question of tactics for the “speculator” who follows short and medium-term trends. The later sections of the chapter address the question of strategy and tactics for the long-term investor and provide a discussion of the term “speculator.”)

It is possible (as many traders have discovered) to lose money in a Bull Market—and, likewise, to lose money trading short in a Bear Market. You may be perfectly correct in judging the Major Trend; your long-term strategy, let us say, may be 100% right. Except, without tactics, without the ability to shape the details of the campaign on the field, it is not possible to put your knowledge to work to your best advantage.

There are several reasons why traders, especially inexperienced traders, so often do so poorly. At the time of buying a stock, if it should go up, they have no objectives and no idea of what policy to use in deciding when to sell and take a profit. If it should go down, they have no way of deciding when to sell and take a loss. Result: they often lose their profits; and their losses, instead of being nipped off quickly, run heavily against them. Also, there is this psychological handicap: the moment a stock is bought (or sold short), commissions and costs are charged against the transaction. The trader knows the moment he closes the trade there will be another set of charges. Also, since he is not likely to catch the extreme top of a rally or the extreme bottom of a reaction, he is bound, in most cases, to see the stock running perhaps several points against him after he has made his commitment. Even on a perfectly sound, wise trade, he may see a 10% or more paper loss before the expected favorable move gets under way (see [Figure 18.1](#)). Obviously, if he weakens and runs for cover without sufficient reason before the stock has made the profitable move he looked for, he is taking an unnecessary loss and forfeiting entirely his chance to register a gain.

The long-term investor who buys in near the bottom and remains in the market to a point near the top, to later liquidate and remain in cash or bonds until (perhaps several years later) there is another opportunity to buy in at the bottom, does not face the continual problem of when to buy and when to sell. This assumes one can tell precisely when such a bottom has been reached and when the trend has reached its ultimate top (and those are very broad assumptions indeed). The long-term investment problem for large gains over the Major Trends is by no means as simple as it sounds when you say, “Buy them when they’re low, and sell them near the top.” However, such large gains have been made over the long pull, and they are very impressive. *(EN: Note the record of the Dow Theory in [Chapters 4 and 5](#).)*

This section of the book is concerned more particularly with the speculative purchase and sale of securities.

There are some basic differences between the “investment” point of view and the “speculative.” It is a good thing to know these differences and make sure you know exactly where you stand (see [Figure 18.2](#)). Either viewpoint is tenable and workable, but you can create serious problems for yourself, and sustain heavy losses, if you confuse them.

One difference is a speculator deals with stocks as such. A stock, to be sure, represents ownership in a company, but the stock is not the same thing as the company. The securities

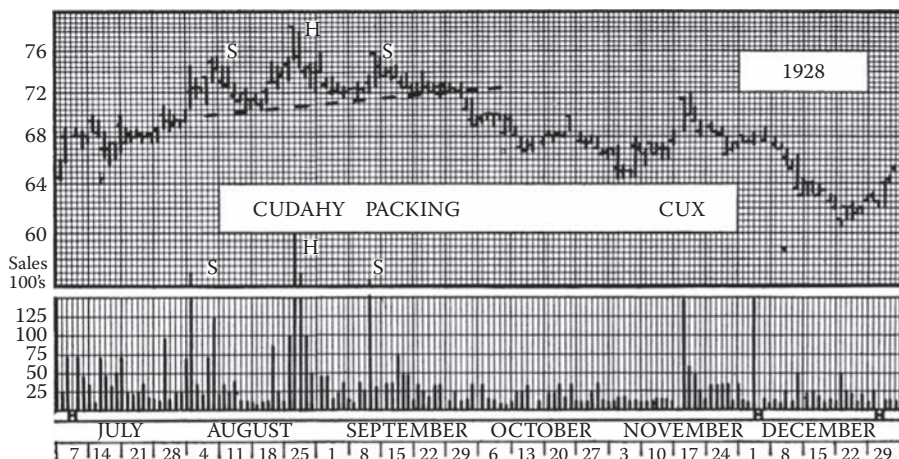


Figure 18.1 It is possible to lose money owning stocks in a Bull Market. Notice this Major Top Formation did not occur in 1929, but in the summer of 1928. For more than a year after this, a majority of stocks and the Averages continued the Bull Market Advance. But Cudahy declined steadily, reaching a price below 50 well before the 1929 Panic, and continued in its Bearish course for more than four years, ultimately selling at 20. Except for the somewhat unusual volume on the head on August 21, this is a typical Head-and-Shoulders Pattern with a perfect Pullback Rally in mid-November. It underscores what we have mentioned before—a Head-and-Shoulders Top in a stock, even when other stocks look strong, cannot safely be disregarded.

The Head-and-Shoulders Pattern, either in its simple form or with multiple heads or shoulders, is likely to occur at Major and Intermediate Tops, and in reverse position at Major and Intermediate Bottoms. It has the same general characteristics as volume, duration, and breakout as the Rectangles and the Ascending and Descending Triangles. In conservative stocks, it tends to resemble the Rounding Turns.

of a strong company are often weak, and sometimes the securities of a very weak concern are exceedingly strong. It is important to realize the company and the stock are not precisely identical. The technical method is concerned only with the value of the stock as perceived by those who buy, sell, or own it.

A second difference is in the matter of dividends. The “pure investor,” who, by the way, is a very rare person, is supposed to consider only the “income” or potential income from stocks—the return on his investment in cash dividends. (*EN: This rara avis is largely extinct now.*) Nevertheless, there are many cases of stocks that have maintained a steady dividend while losing as much as 75% or more of their capital value. There are other cases in which stocks have made huge capital gains while paying only nominal dividends or none at all. If the dividend rate were as important as some investors consider it, the only research tool one would need would be a calculator to determine the percentage yields of the various issues; hence, their “value,” which, on this basis, stocks paying no dividends would have no value at all.

From the technical standpoint, “income,” as separate from capital gains and losses, ceases to have any meaning. The amount realized in the sale of a stock, less the price paid and plus total dividends received, is the total gain. Whether the gain is made entirely in capital increase, entirely in dividends, or in some combination of these, makes no difference. In the case of short sales, the short seller must pay the dividends. Although, here again, this is simply one factor to be lumped with the capital gain or loss in determining the net result of the transaction.

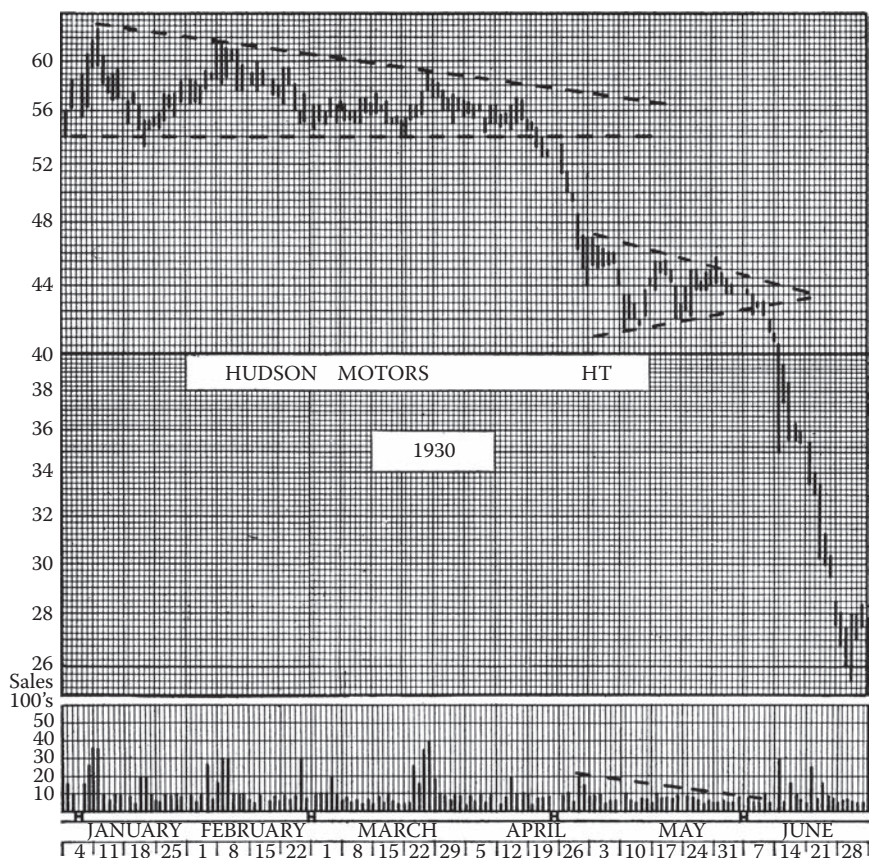


Figure 18.2 What would you have done with Hudson Motors? The great Panic Move of October–November 1929 carried the Dow–Jones Industrial Average down from its September all-time high of 386.10 to a November low of 198.69. A rally, bringing the Average back to 294.07 in April 1930, recovered 95 points, or 51% of the ground lost, a perfectly normal correction.

Suppose you had bought HT after the decline from its 1929 high of $93 \frac{1}{2}$, say at 56, in the belief that the 37-point drop had brought it into a “bargain” range. On your daily chart, you would have seen the pattern shown above (which you will now recognize as a Descending Triangle) taking shape in the early months of 1930. Would you have had a protective stop at 51? Would you have sold at the market the day after HT broke and closed below 54? Or would you have hoped for a rally, perhaps even bought more “bargains” at 50, at 48, at 40? Would you still have been holding onto your “good long-term investment” when HT reached $25 \frac{1}{2}$ in June? Would you still have been holding HT when it reached its ultimate 1932 bottom at less than 3 (see [Figure 8.22](#))? (EN: See [Figure 18.4](#) for a recapitulation of the lesson from the 2000s.)

There is a third source of confusion; very often, the “pure investor” will insist he has no loss in the stock he paid \$30.00 for, which is now selling at \$22.00, because he has not sold it. Usually he will tell you he has confidence in the company and he will hold the stock until it recovers. Sometimes he will state emphatically that he never takes losses.

How such an investor would justify his position if he had bought Studebaker at more than \$40.00 in 1953 and still held Studebaker Packard at around \$5.00 in 1956 (EN: Or

Osborne at \$25.00 and \$0.00 in the 1980s or Visacalc at similar prices in the same decade. EN9: Or Enron and WorldCom in the 2000s. Or Bear Stearns, or Lehman, or ...) is hard to say; however, for him, the loss does not exist until it becomes a “realized” loss.

Actually, his faith the stock will eventually be worth what he paid for it may be no more than a speculative hope—and a forlorn one at that.

Furthermore, one may question whether his reasoning is always consistent. For example, suppose another stock this investor had bought at \$30.00 was now selling at \$45.00. Would he tell you he did not consider a profit or loss until the stock was sold? Or would he be tempted to speak of the “profit” he had in this purchase?

It is all right to consider gains or losses either on the basis of “realized” or completed transactions, or on the basis of the market values “accrued” at a particular time? Yet, it is not being honest with yourself to use one method to conceal your mistakes and the other method to accentuate your successes. The confusion of these concepts is responsible for many financial tragedies. (EN: *One might almost say, in the modern context, such confusion amounts to willful or neurotic behavior. Given the easy availability of portfolio software that marks-to-market positions, avoidance of this knowledge can only be regarded as self-defeating.*)

As a trader using technical methods, you will probably find the most realistic view is to consider your gains and losses “as accrued.” In other words, your gain or loss at a given time will be measured with reference to the closing pricing of the stock on that day.

Recapitulating, it is important (1) to avoid regarding a stock and the company it represents as identical or equivalent; (2) to avoid the conscious or unconscious attribution of “value” to a stock on the basis of dividend yield, without regard to market prices; and (3) to avoid confusing “realized” and “accrued” gains or losses.

The technical trader is not committed to a buy-and-hold policy. There are times when it is clearly advantageous to retain a position for many months or for years, but there are also times when it will pay to get out of a stock, either with a profit or with a loss. The successful technician will never, for emotional causes, remain in a situation that, on the evidence at hand, is no longer tenable.

An experienced trader using technical methods can take advantage of the shorter Intermediate Trends, and it can be shown that the possible net gains are larger than the entire net gains on the Major Trend, even after allowing for the greater costs in commissions and allowing for the greater income tax liability on short-term operations.

It should be understood that any such additional profits are not easily won. They can be obtained only by continual alertness and adherence to systematic tactical methods. For the market, regarded as a gambling machine, compares very poorly with stud poker or roulette, and it is not possible to “beat the market” by the application of any simple mathematical system. If you doubt this, it would be best to stop at this point and make a careful study of any such “system” that may appeal to you, checking it against a long record of actual market moves. Ask yourself whether you have ever known anyone who followed such a system alone, as a guide to market operations, and was successful. (EN: *After Magee wrote this, many successful traders, aided by computer technology and advances in finance theory, have created algorithmic systems that have been successful in the financial markets. However, the markets usually become aware of the success of these systems and develop counterstrategies to defeat them. So there is a tendency for the performance of mechanical systems to degenerate or totally fail over time. It is the happy combination of the system with markets hospitable to it that makes mechanical systems successful over defined periods of time.*)

The practice of technical analysis, on the other hand, is not a mathematical process, although it does involve mathematics. It is intended to search out the significance of market moves in the light of past experience in similar cases, by means of charts, with a full

recognition of the fact that the market is a sensitive mechanism by which all of the opinions of all interested persons are reduced by a competitive democratic auction to a single figure, representing the price of the security at any particular moment. The various formations and patterns we have studied are not meaningless or arbitrary. They signify changes in real values, the expectations, hopes, fears, developments in the industry, and all other factors that are known to anyone. It is not necessary to know, in each case, what particular hopes, fears, or developments are represented by a certain pattern. It is important to recognize the pattern and understand what results may be expected to emerge from it.

The short-term profits are, you might say, payment for service in the “smoothing out” of inequalities of trends, and for providing liquidity in the market. As compared with the long-term investor, you will be quicker to make commitments and quicker to take either profits or (if necessary) losses. You will not concern yourself with maintaining “position” in a market on any particular stocks (although, as you will see, we will try to maintain a certain “total Composite Leverage” [or risk and profit exposure] according to the state of the market, which accomplishes the same result). You will have smaller gains on each transaction than the long-term investor, but you will have the advantage of being able to frequently step aside and review the entire situation before making a new commitment.

Most particularly, you will be protected against Panic Markets. There are times (and 1929 was by no means the only time) (*EN: 1987 and 1989 also come to mind. EN9: Add 2001–2002, if you please: May 2, 2001, Dow 11,350; September 17, 2001, 8,062; March 18, 2002, 10,673; and July 22, 2002, 7,532*), when the long-term investor stands to see a large part of his slowly accumulated gains wiped out in a few days. The short-term trader, in such catastrophes, will be taken out by his stop-loss orders, or his market orders, with only moderate losses, and will still have his capital largely intact to use in the new trend as it develops. (*EN: The best technical analysts’ opinion in “modern times” is that even long-term investors should not grin and bear a Bear Market. This is a necessity only for bank trust departments and believers in Burton Malkiel.*)

Finally, before we get on with the subject of tactics, the operations we are speaking of are those of the small and midsize trader. The methods suggested here, either for getting into a market or getting out of it, will apply to the purchase or sale of odd lots, 100 shares, 200 shares, and sometimes up to lots of thousands of shares or more of a stock, depending on the activity and the market for the particular issue. The same methods would not work for the trader who was dealing in 10,000-share blocks (except in the largest issues) because, in such cases, his own purchases or sales would seriously affect the price of the stock. Such large-scale operations are in a special field governed by the same basic trends and strategy, but that requires a different type of market tactics (see [Figure 18.3](#)). (*EN: Or, put another way, as Magee said to me one time, a mouse can go where an elephant cannot.*)

Strategy and tactics for the long-term investor— What’s a speculator? What’s an investor?

In the years since Magee wrote the original [Chapter 18](#), some different connotations have attached themselves to the terms “speculator” and “investor.” A great cultural shift has also occurred. The days when the New Haven (New York, New Haven, and Hartford Railroad) was a beacon of respectability (and lent luster to its investor) and paid “good dividends” are gone forever; as is the New Haven. In fact, after the turn of the century, corporations saw a change in investor sentiment about dividends. Investors wanted capital appreciation

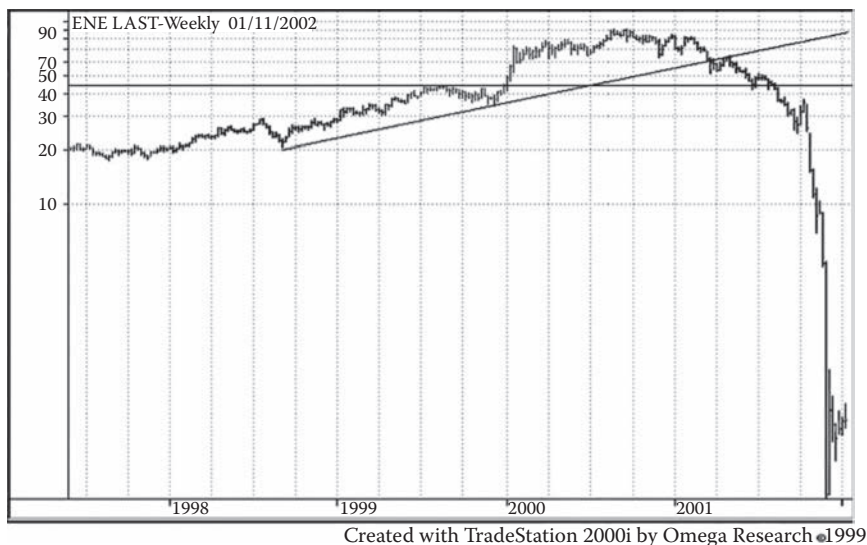


Figure 18.3 If an investor only learned one thing from this book, it would be that one thing might be the salvation of his portfolio or his retirement plan (if all his assets in the investment plan were shares of Enron). Instead, the employees of Enron made a major mistake in not having a diversified retirement portfolio—they had all their eggs in one basket, their income and savings came from one source. But diversification is not even the crucial lesson here; the lesson is get out of the stock when it reverses. The corollary of that lesson is never buy a stock in a downtrend. However, the more important lesson is never buy a stock when it is in a swan dive. So obvious you say, but not so obvious at the time for portfolio managers for the University of Miami who continued to accumulate Enron stock even as it neared earth at 100 miles an hour. Of course, they had a sophisticated (?) company; the Motley Fools had a death grip on the stock all the way to the bottom.

and cared less for dividends. In fact, it has lately been considered the mark of a “growth stock” not to pay dividends. Evidently, the days of the New Haven are gone forever, when an “investor” was one who bought, held, and collected dividends, and “speculators” were slightly suspect men like Magee who played the medium-term trends and bought “unchic, speculative” stocks. It all has a sepia tone to it. Yesterday’s Magee speculator might be called a medium-term investor today.

Although the term “speculator” could still be applied to anyone who “trades” the market, today that old-time speculator and his kind would more likely be called traders than speculators. Commodity traders who have no business interest in the contracts they exchange are always referred to as *speculators*, as opposed to *commercials*, who are hedgers and users of the commodities they trade. Now “day traders” might be considered the equivalent of the old-time speculators—except that day trading veers dangerously close to gambling. And only the passive, in the opinion of this editor, never trade at all and sit on their holdings during Bear Markets.

On the spectrum of investors, from investor to gambler, the old “New Haven Investor” who “wants his dividends” is pretty rare these days, and, again, may be one of those trust departments that does not want to get sued and so stays out of stocks that go up. After all, prudent men do not “trade in volatile stocks” but “invest in safe issues, like bonds,” which only lose about 1.5%–2.0% of their purchasing value per year but preserve the illusion of having “preserved principal.”

One definition of the long-term investor

Let us take as a long-term investor now one who expects to at least track market returns, for it has been demonstrated over a relatively long period of time that this can be done by passive indexing. At the turn of the century, as this is written, it would seem neither long-term, medium-term, nor short-term investors think about the risks involved in matching the market because, entering the third millennium, it has been so many years since we have had a really vicious Bear Market. Dow 36,000? This is a passing phase. As each Bull Market reaches higher and higher, the odds are lower and lower that it will continue—historic Bull Markets of the 1990s notwithstanding.

What then are the strategy and tactics for the long-term investor to achieve a goal of matching the market? (EN9: *Is it necessary to remind the reader of [Chapter 4](#) and the Dow Theory?*)

Let us remark immediately that the tactics Magee described for the speculator—or trader if you will—are not at all in conflict with the short-term tactics used occasionally by the long-term investor. As buying or selling time approaches the stops of the long-term investor, that investor becomes a trader who can and should adopt the trader's tactics. Sooner or later, the focus even narrows to real time at the moment of trade execution. Interestingly, the charting techniques we have described here work on tick-by-tick data in real time also. Hence, if the trader wants to enter into the real-time environment, he can attempt to time his trade right down to the real-time chart formations. Only the really active and skilled long-term investor will be concerned with squeezing the last half point or points out of his position. This illustration of the time focus is addressed to any investor or trader or speculator to demonstrate the fractal nature of both price data and the applicability of Magee-type technical analysis to it.

The strategy of the long-term investor

The strategy of the long-term investor is to catch the long trends—to participate in trades that lasts months and years. However, this strategy does not intend to be sucked into long Bear Markets. Rather, portfolios are liquidated or hedged when Bear Market signals are received. As has been previously seen in examples of the performance of (more or less) mechanical Dow Theory (see [Chapter 4](#)), this kind of performance can be quite satisfactory—better indeed than buy-and-hold strategies that have come much into vogue because of the Clinton–Gore Bull Markets of the 1990s.

If the goal is to beat not only the markets but also the mutual funds (only 20% of which outperform the market over the long term anyway—and sometimes none of them make money), then passive indexing is the most likely strategy. This may be done in a number of ways—index funds, buying the basket, buying the futures, and so on. Nevertheless, the most attractive method might be the use of the Standard & Poor's Depositary Receipts (SPDRs; SPY) and DIAMONDS™ (DIA) and the like. The tactics may be calibrated to the risk tolerance and character of the investor. He might hedge or sell on Dow Theory signals, or on breaks of the 200-day moving average, or on breaks of the long-term or intermediate trendlines with a filter (Magee recommended 2%, and this might be calibrated to the character of the markets and increased to 3% or a factor relevant to actual market volatility). Basing Points (see [Chapter 28](#)) is also a powerful method. Instruments we have previously discussed—SPDRs, DIAMONDS, index futures, and options—can be used to execute these tactics.

Suffice it to say that every strategy must provide for the plan gone wrong, in other words, the dreaded Bear Market. Bear Markets would not be so fearsome if the average investor did not insist on seeing only the long side of the market. Long-term strategies go

out the window quickly when blood runs on the floor of the New York Stock Exchange. The well-prepared technical investor has a plan that provides for the liquidation of positions gone bad and presumably the discipline to execute it.

This involves the regular recomputation of stops as markets go in the planned direction, and ruthless liquidation of losers that do not perform. One may think of a portfolio as a fruit tree. Weak branches must be pruned to improve the yield. Stop computation is treated in a number of places in this book (see [Chapters 27](#) and [28](#)). For the investor trading long term, this may be, as an example only and not as a recommendation, the breaking of the 200-day moving average or the breaking of a long-term trendline. The 200-day moving average is widely believed to be the long-term trend indicator, for which believing will sometimes make it come true. (EN9: *Let me emphasize here that “200” is a parameter and an example. Personal research may fit a better parameter to the actual market.*)

In reality, more than just the 200-day moving average or a manually drawn trendline should be looked at. The chart patterns comprising the portfolio should be considered also, as well as charts of major indexes and averages. Also, consider the condition of the averages and their components—their technical state—whether they are topping, consolidating, or trending as indicated by their charts.

Moreover, it would be impossible not to mention Magee’s Basing Points Procedure (see [Chapter 28](#)). Possibly the most powerful trailing stop method in existence.

Rhythmic investing

In addition, if [Chapter 31](#) on “Not All in One Basket” is weighed seriously, one might be rolling a portfolio from long to short gradually in natural rhythm with the markets and in harmony with the Magee Evaluative Index described there. That is the preferred strategy of the authors and editor of this book.

These things all depend on the goals, temperament, and character of the investor. If he is going to spend full time on the markets, he is probably not a long-term investor. Such men eat well and sleep soundly at night. The trader is lean and hungry—not necessarily for money, but for activity. It behooves one to know his type as a trader or investor. Knowing one’s type or character is best established before finding it out in the markets, as the markets can be an expensive place to search for self-knowledge.

There is no inherent conflict in holding long-term positions and also attempting to profit from intermediate trends, depending on the amount of capital in hand and how much time, energy, and capital the investor wants to put into trading. A long-term strategy can be implemented with a modicum of time and energy, as follows: pay attention to the major indexes and averages and buy on breakouts, at the bottoms of consolidations and on pullbacks; sell or hedge on the breaking of trendlines, calculated on Basing Points (see [Chapter 28](#)) and the penetration of support zones.

The long-term investor will accept greater swings against his position than the intermediate-term trader or speculator. As an example with the method of using Basing Points in [Chapter 28](#), the speculator is using a three-days-away rule, whereas a long-term investor might be using a three-week Basing Point or some such analogy. Plus, if interested, when he suspects or analyzes a long Bull Market is approaching a climax, he might adopt the three-days rule also, or even begin following his stock with a daily stop just under the market. Beware though, as professionals look for stops just under the close of the previous day in situations such as these.

It would be wise not to confuse long-term investing with “buy and hold,” or as it was expressed in one investment fad in the 1970s, “one-decision investing.” As an example of this

misguided thinking, in 1972, the “best and brightest” investment analysts (fundamental) on the Street picked a portfolio of stocks for the generation, or 20 years. The companies would be difficult to argue with as the *crème de la crème* of American business. After all, who could kvetch at Avon, Eastman Kodak, IBM, Polaroid (unless he happened to look at [Figure 37.27](#)), Sears Roebuck, and Xerox? Even today, if you did not have a close eye on the market, you would immediately respond, “blue chips.” Consider the following table showing the stocks and the results achieved over the long term.

	Price	Price	Percent
Stock	4/14/72	12/31/92	Change
Avon Products	61.00	27.69	(54.6)%
Eastman Kodak	42.47	32.26	(24.0)%
IBM	39.50	25.19	(36.2)%
Polaroid	65.75	31.13	(52.7)%
Sears Roebuck	21.67	17.13	(21.0)%
Xerox	47.37	26.42	(44.2)%

In 2017, the vagaries of unsupervised portfolios is again seen: Avon 2.50; Kodak 7.75; IBM 141; Polaroid unlisted; Sears 7.21; Xerox 32.64. Beware of pundits and mindless investing.

Charts ([Figures 18.4](#) and [18.5](#)) showing activity for IBM and Xerox appear on the following pages.



Figure 18.4 The questionable—even bizarre—results of “one-decision investing” (i.e., buy and hold) are amply illustrated by this chart. First of all, the “best and brightest” recommended IBM at a decade high to see it decline by more than 50%. It subsequently recovered to double from their original recommendation. Ah, sweet justification! Only, unfortunately, at the end of 20 years to see it rest approximately 40% beneath the recommendation. The analytical lines give some hint of how a technician might have traded the issue. I like to say that there are bulls, bears, and ostriches, and anyone who followed this one-decision investment proves my case.



Figure 18.5 Like IBM in the previous figure, Xerox was recommended at a place at which it should have been sold instead of bought. The comments there might apply to the chart here. The foolishness of “buy and hold” or “one-decision investing” is amply illustrated by observing the long-term swings of the stock and thus of the investor’s equity. Technical analysis is intended to be an antidote to such foolishness.

Summary

The long-term investor attempts to catch major market moves—those lasting hundreds, if not thousands, of Dow points and stay in trades for many months if not years.

Within this time frame, he expects to take secondary trends against his position. Depending on his temperament and inclination, he may attempt to hedge his portfolio upon recognizing secondary market moves against his primary direction.

His preference for stocks and portfolio will be for market leaders, for baskets that reproduce the major indexes (or Index Shares) as the ballast for his portfolio, and he may choose some speculative stocks to add spice to his portfolio.

In spite of his penchant for long-lasting trades he will not tolerate weak, losing, or underperforming stocks. They are the shortest of his trades. He will cut losses and let profits run, the truest of the market maxims and the least understood by unsuccessful investors. The other maxim least understood by investors is “buy strength, sell weakness.”

Truly sophisticated investors attempt to participate in Bear Market trends also. This is the greatest difference between professional and general investors—professionals have no bias against the short side.

For the convenience of day traders, the URL of Gamblers Anonymous is noted: <http://www.gamblersanonymous.org>.

chapter nineteen

The all-important details

In this chapter and the one following, we take up a number of elementary suggestions intended largely for the benefit of those who have never kept charts before. Much of this will seem obvious and repetitive to the advanced student, although even he may find some thoughts that will simplify his work. The beginner should read these chapters carefully and use them for later reference.

The details of how and when you keep the charts will not guarantee you profits, but if you fail to work out these details in such a way as to make your work easy, as part of a regular systematic routine, you cannot expect to keep up your charts properly or make any profits.

Charting and analyzing your charts is not a difficult process, nor will it take too much of your time if you have determined a reasonable number of charts and have arranged for doing the work regularly, meaning every day without fail.

You will need a source of data—the day's market prices and volume. If you live in a big city, your evening paper will carry the complete list, and you can plan to set aside a certain period before dinner, or after dinner, or during the evening. If you cannot allot such a period and keep it sacred against all other social or business obligations, then plan to do the charting in the morning. The key is to set a definite time and let nothing interfere, ever, or you are lost. (*EN: This process is radically simplified by automated computer downloading procedures and access to data sources and internet sites, but the principle is the same.*)

You should have a suitable place to work and keep your charts. If it is at home, in the dining room or living room, other members of the family should understand that what you are doing is important. You should be able to shut the door and work without interruption. The light should be bright and as free from shadows as possible. (It makes a big difference, especially if you are keeping a large number of charts.) The ordinary desk lamp throws a reflected glare directly across the paper and into the eyes. It can be a strain if you are doing much of this close work. Better to have an overhead light, placed just a few inches in front of your head and a convenient distance above; and if this light can be a fluorescent fixture using two 40-watt lamps, you will get almost perfect shadowless lighting. These suggestions apply in case you are not working by daylight.

Additionally, have plenty of room. A big desk top or a dining room table with a large clear space for chart books, extra sheets, pencils, scratch paper, ruler, calculator, computer equipment, and anything else you need. If your working surface is fairly low, say 28 or 29 inches from the floor, it will be less tiring than the usual 30-inch desk height.

Whether you are working in ink or in pencil, pick out the writing tool that is easiest for you to use. If you are using pencils, try several different makes and degrees of hardness. Find one that is hard enough not to smudge too easily, and yet is not so hard you have to bear down to make a clean black mark. The wrong kind of pencil can tire you and irritate you more than you realize. Also, have plenty of pencils, a dozen at least, well-sharpened, so as soon as one becomes a trifle dull and you are not getting a clean, fine line, you can simply lay it aside and continue at once with another freshly-sharpened pencil.

Keep your charts in loose leaf books with big enough rings to make turning the pages easy. Do not overcrowd the books; get new books if a volume is too crowded. Finished charts may be kept in file folders. The only ones that need to be in the books are the current sheets and the sheets for the immediately preceding period. If possible, use a seven-ring binder. Pages are easily torn loose from two- and three-ring binders, but seven rings will hold the pages safely and you will seldom have one tear out.

The charts you keep will become increasingly valuable to you as the chart history builds up. The old chart sheets will be very helpful to you for reference. Provide a file or space where they can be indexed and kept in chronological order, and also have file folders for brokers' slips, dividend notices, corporate reports, clippings and articles, notes on your own methods, and analyses and special studies of the work you are doing.

In this connection you will, of course, keep a simple but complete record of each purchase, sale, dividend, and so on, on stocks you have bought or sold. This record will make your work much easier when the time comes to figure out income taxes. It will also give you all the statistical information you need to judge the results of your trading operations.

(EN: At the beginning of my investment career, and often in the middle of it, I thought the above was cracker-barrel wisdom. The longer I last the more I think that homespun wisdom might be the best kind to have in investing—somewhat like Mark Twain, who was astounded at how much his father increased in wisdom the older Twain himself got.

We may restate the modest homilies above: Be serious. Be methodical. Be disciplined. Be business-like. Anyone who succeeds in investing without these qualities is the recipient of blind luck and will be fortunate not to fall into a hole before his career is over.

These thoughts occur when one is wondering how Magee would have viewed the advent of the microcomputer and its impact on technical analysis and investing. Might he have said, "What hath this tool wrought?! Wonders and abominations!!"

Given the possibilities for complicating analysis and operations when confronted with all the bells and whistles of the average computer software package, the investor must maintain perspective. What, then, are the all-important details in practicing technical analysis with the aid of a computer?)

The simplest and most direct way to use a computer for charting analysis

In reality, the computer can be used as a simple tool to do a simple job. There is nothing inherently complicated about keeping a chart on a computer. All computer software packages enable bar charting and many, if not most, enable many other kinds of charting, from candlesticks to oscillator charting. The process, in almost all commercially available packages, is so simple that explaining it here would be superfluous (see Appendix B, Resources, for demonstrations), except to generally say it consists of retrieving data, updating the program's price database, and clicking an icon to run a chart. The software packages themselves explain their features better than can be done here. What is important here is to give perspective. Even simpler when the whole process takes place on the internet, as at <http://www.stockcharts.com> or <http://www.bigcharts.com>, or <http://www.tradestation.com>.

In this respect, charting can be done with quite expensive programs and also on publicly available free programs or freeware. Charting can also be done with interactive charting programs on many internet sites. The basic bar chart can be enhanced with an unending number of technical studies—moving averages, oscillators, and so on. Therein lies the danger. Chart analysis in itself is a qualitative process. Decorating graphic charts with number-driven information and studies can lead the general investor astray—and into confusion and indecision.

Thus, the first preference of this analyst is to keep the process as simple as possible. Get the data, draw a chart, analyze the patterns, consider the volume, and draw the appropriate analytical lines—this can usually be done by the program on the screen. Often a better graphic picture may be obtained by printing the chart and hand-drawing the analytical lines. This brings to the fore one of the main problems of almost all the software packages—screen graphics are poor and, at least to old chartists, disorienting. They are especially befuddling to analysts who are accustomed to working on TEKNIPLAT™ chart paper. With passing editions of *Resources*, this problem will be dealt with. (EN9: In the intervening years since the eighth edition, two things have occurred: the editor adjusted to modern technology and the technology achieved a level of excellence acceptable to a carping analyst. Internet technical analysis sites such as <http://www.stockcharts.com> and <http://www.thinkorswim.com> improved to be surprisingly valuable resources at unbelievably low prices—even free.)

The question of graphic representation of the facts is worth noting as a persistent one. To a certain extent, the individual analyst will solve this conundrum by adapting his eye and mind to a graphic environment, using one graphic method consistently and seeing how it relates to the facts in the market. John Magee-oriented solutions to this problem will be available on the website <http://www.edwards-magee.com>.

In Appendix B, *Resources*, the reader may see some examples of simple and inexpensive software packages and internet sites that are quite adequate to the required tasks of charting technical analysis, as well as more complex number-driven analysis.

Summary

The computer is an invaluable tool for analysis. Use of it will enable the following:

- Data may be acquired automatically via internet or dial-up sites at little or no cost. Some of these even offer real-time data, which is a way for the unsophisticated trader to go broke in real time, but which the general investor may desire on the day of executing a trade. Many of these sites offer every kind of analysis from respectable technical analysis (usually too complicated) to extraterrestrial channeling.
- A computer package and internet portfolio sites will give the analyst virtually effortless portfolio accounting and mark-to-market prices—a valuable device to have to keep the investor from mixing his cash and accrual accounting, as Magee says.
- The computer will enable processing of a hitherto unimaginable degree. An unlimited number of stocks may be analyzed. Choosing those to trade with a computer will be dealt with in [Chapters 20 and 21](#).
- Appendix B, *Resources*, contains information on software packages that the reader may try and purchase at quite reasonable prices. In all likelihood, the least expensive of these will be adequate to the needs of most general investors. In addition, I present a brief discussion of internet sites and resources.



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chapter twenty

The kind of stocks we want: the speculator's viewpoint

The specifications of the kind of stock we want to chart are fairly simple and few. We want a stock that will enable us to make a profit through trading operations, meaning a stock whose price will move over a wide enough range to make trading worthwhile. There are those who are concerned mainly with safety of principal and the assurance of income from a stock. For them, there are (EN9: *or were*) stocks that afford a considerable degree of stability. You may (and probably will) want to keep a substantial part of your total capital in stocks of this type. They move in a narrow price range; are extremely resistant to downside breaks in the market; are also (and necessarily) unresponsive to fast upside moves in the market as a whole, and are highly desirable for the conservative investor. They are not, however, the most suitable issues for trading operations, because their swings are small, and commissions would tend to diminish the narrow trading profits that could be taken. Also, they do not make the sharp, clear chart patterns of the more speculative issues, but move in rounding, sluggish undulations. (EN9: *These remarks reflect a bygone time. The described stocks by and large went the way of the Dodo. When T can disappear from the market as a factor, there is no place to hide, except in bonds, which, when stagnant, only lose real value at the rate of inflation and loss of purchasing power of the dollar. Even bonds should be subject to frequent reevaluation using the tools described in this book.*) (For illustrations in this chapter, see [Figures 20.1](#) through [20.4](#).)

To amplify this comment and explain a bit about what underlies what we are doing, let us assume a certain company has two issues of stock, a preferred and a common. We will assume the concern has a certain steady minimum profit it has earned for years, sufficient to pay the preferred dividend, the continuance of these dividends seems practically assured. The dividends on the preferred are fixed at, let us say, 6%. Now the common stock gets all that is left. In one year, there may be \$0.50 a share for the common stockholders. The next year, there may be \$2.00 a share or four times as much. In a case like this, if there are no other factors, you would expect the preferred stock to sell at a fairly steady price without much change, whereas the common stock is subject to a “leverage” and might shoot up to four times its former value. The more speculative issues represent either a business that is, by its nature, uncertain as to net profit from year to year, where the volume of business or the profit margin fluctuates widely, or one in which the majority of the “sure” net profit has been sheared off for the benefit of senior obligations. There are also other factors that affect the speculative swing of a stock, and, as a result, one issue may be very sensitive and another extremely conservative, and between them there would be all shades and degrees of sensitivity or risk. It is enough here to note briefly the nature of the business itself does not always account for the habits of the stock because the other factors may be very important. Most stocks have a fairly well-defined “swing” power, which can usually be determined by past performance of

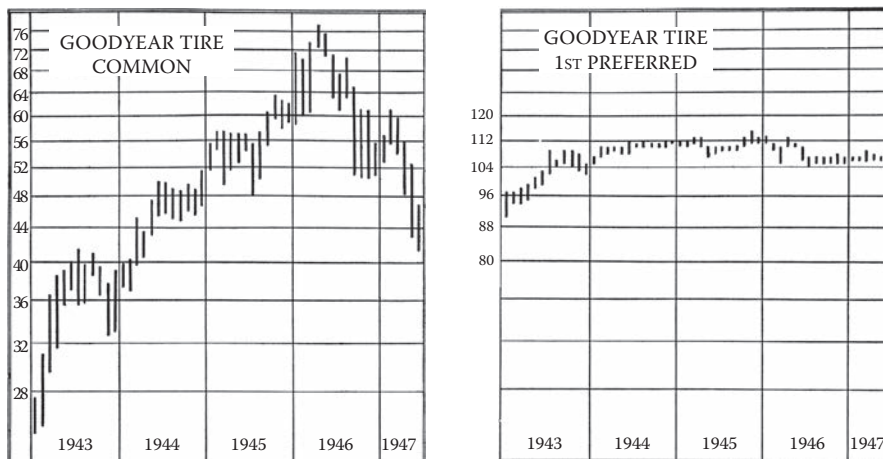


Figure 20.1 Opportunity vs. Security. Here (at left) is Goodyear Common, representing the residual interest in all profits after senior obligations have been met, compared (at right) with the Goodyear \$5.00 Preferred, which carries a high degree of assurance that the \$5.00 dividend will be met, but no promise of further participation in profits. Monthly range of each stock for the same 54-month period is shown on a ratio scale. As the Common makes an advance of more than 300%, the Preferred advances about 25%, leveling off at a point that represents the maximum price investors are willing to pay for the sure \$5.00 dividend.



Figure 20.2 S&P. Here the benefits of relaxed long-term investing may be seen, buttressed, of course, by the longest and handsomest Bull Market in American history in the Clinton–Gore years. At the end of this record, the effects of public enthusiasm (or as Chairman Greenspan of the Fed said, “irrational exuberance” *vide tulipomania*) can be seen in the wide undisciplined swings (best seen in Figure 20.3). The dotted line represents 150-day (approximately) Moving Average. Just using the Moving Average as a signal (or the Basing Points Procedure) would have beaten the market and 99% (the 99%) of other investors.

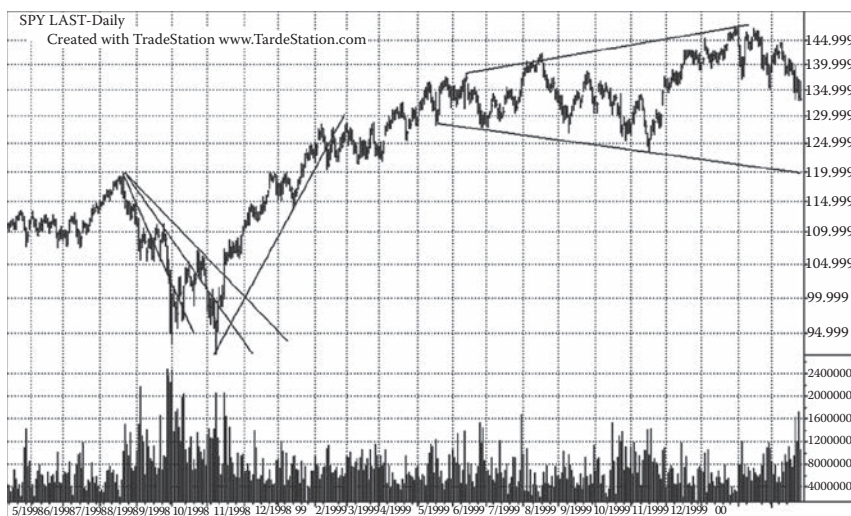


Figure 20.3 SPY. For illustration, here is a chart of the AMEX Index Share, the SPY, or ETF based on the S&P 500. After the crash of 1998 (the Asian Economic Flu crash), the fan lines tell a story, as does the last phase of the chart where the market whips in what appears a Broadening Top. (EN9: Note this Broadening Top was identified in 1999–2000 before the crash as documented in the <http://www.edwards-magee.com> archives. See Figure 20.4.)



Figure 20.4 The S&P 500 in all its glory and tragedy. An especially good portrait by Holbein, the younger. The Broadening Top pointed out in Figure 20.3 in 2000 foretold the decline of the S&P to below 790—not quite 50% but close enough to catch the eye. Particularly fine lessons here, besides the Broadening Top lesson. All of them *screaming* for action. The broken trendline at A, the broken trendline at B, the broken “neckline” or horizontal line at C. Notice the close correspondence of the break at B and C. The next lesson is not to buy downtrends until a clear bottom is made in a major bear market. Clearly no bottom is made until the Kilroy Bottom at 1–2–3. Even then, the least risky trade for the long-term investor is when the Kilroy Fenceline (Neckline) is broken at D. All of this was knowable at the time.

how a stock will behave in the future as to the extent of its swing. (EN9: *Or we might say, short-term volatility and long-term range.*)

Incidentally, for short-term trading (EN9: *amusing in the modern context; by short-term trading Magee means trading of trends of shorter length than Dow Waves*), we are thinking about the habits of the stock that are only partly determined by the business it represents. Purchase of stock in one company that has a somewhat uncertain or fluctuating profit record may be more conservative than purchase of a highly leveraged stock of another company whose basic business is steadier and more conservative. We will take up the matter of determining these risk constants a little later.

One should also understand the short sale of a stock does not imply any feeling that the country is going to the dogs or even that the concern represented is going to the dogs. Such a sale merely indicates your belief the stock may be temporarily overpriced; that earnings or dividends may have been abnormal in recent years and are likely to be reduced; or that for one reason or another, the stock of the company may be worth a bit less than it has been worth.

For technical trading, we want a fairly speculative stock, one that will make sizable swings up in a Bullish Trend and down in a Bearish Trend. The very factors that tend to make a stock safe and desirable to the investor may make it entirely unsuitable for trading. Also, with certain reservations that will be taken up later on, the more speculative the stock the better it is for our purposes.

(EN: *Entering the third millennium (since we Anglo-Saxons started counting—the fourth or fifth by other measures), the distinctions between “speculative” stocks and every other kind of stock has grown increasingly blurry. Rather than apply a perhaps pejorative (in the minds of some readers) term like “speculative” to otherwise-innocent stocks, we would do better to describe stocks as wide ranging or narrow ranging, as volatile or nonvolatile. Stocks may then be evaluated one against another by their betas and historical volatilities, statistical data easy to obtain. “Betas” and “volatilities” are dealt with in [Chapters 24](#) and [42](#).*)

In line with this more current thinking, there is another question for readers of this book—the choice of trading (or investment) instruments for the long-term investor.

The kind of stocks we want: the long-term investor’s viewpoint

Changing opinions about conservative investing

Virtually no one invests like the conservative investor described above in [Chapter 20](#)—except perhaps trust departments of antediluvian banks. There may be some investors still out there who are so risk averse they still follow the method described. Bank trust departments may be still doing it; they used to do it so the trust beneficiaries could not sue them. This is the reason trust departments exist, to give legal cover (the so-called prudent man rule) to trustees in case of suit by beneficiaries. Most enlightened trust departments and trustees now probably follow indexing or other more productive strategies to cater to new understandings of the prudent man rule.

“Indexing” refers to the practice of constructing a portfolio to replicate or closely reproduce the behavior of a widely followed index such as the Standard & Poor’s (S&P) 500 or the Dow–Jones Industrials. These portfolios never track the Indexes exactly because the advisors and funds who manage them take management fees and expenses. These fees are generally less than fees and expenses on actively managed funds, but in fact are not necessary for the private investor to pay because even the tyro investor can now use “Index Shares” (e.g., DIAMONDS™ [DIA], S&P Depositary Receipts [SPDR; SPY, QQQ] and

so on) or other proxy instruments to do what the funds and professionals do. Essentially what indexing does is track the Averages, a strategy that was impossible or difficult (expensive) when Magee examined it, as in [Chapter 15](#). (EN9: *In the opinion of this editor, hiring a management company to run an indexing strategy is a waste of capital. Much better for the investor to invest directly in ETFs and to exit the market when uptrends end and reverse. This is a much better strategy than "passive indexing," which cleverly manages to capture both losses and profits in the Averages.*)

The kinds of stocks long-term investors want: the long-term investor's viewpoint

Perhaps one of the most important actualizations of recent editions is to bring current this book's treatment of the Averages, noting that it is now possible to trade the Averages in stock-like instruments. This fact deserves to be marked as a vitally important development in modern markets. This chapter will confine itself to describing facilities for trading and investing in the Averages and Indexes.

In 1993, the American Stock Exchange (AMEX) introduced trading in SPDRs™, an Exchange-traded unit investment trust based on the S&P 500 Composite Stock Price Index. The AMEX calls these securities Index Shares™, a name they also use for other similar instruments. As noted above, large investors and funds have long traded "baskets" of stocks representing the S&P 500, obviously an activity requiring large capital. In fact, a certain class of investment managers and funds have practiced "passive investing" meaning indexing, primarily for large clients. The purchase and liquidation of these and other "baskets" is one form of "program trading."

Recognizing the utility of this investment practice, the AMEX created the SPDR as a proxy instrument to allow the smaller investor to practice the same strategy. The effectiveness of this product introduction may be measured by public participation in the trading of the SPDR (SPY). By 2000, almost \$15 billion was invested in SPDRs with more than 100,000,000 shares outstanding. These units allow the investor to buy or sell the entire portfolio or basket of the S&P 500 stocks just as he would an individual stock, but the capital required to do so is radically reduced.

In 1998, the AMEX introduced DIA, Index Shares on the Dow-Jones Industrial Average™ (DJIA), which is analogous in every way to the SPDRs. Thus, an investor may "buy the DJIA." So in current financial markets, it is possible to "buy the market," unlike those conditions under which Edwards and Magee operated.

Construction of the Index Shares and similar instruments

The AMEX unit investment trusts are constructed to replicate the composition of their base instrument. The SPDR, for example, is an instrument that represents one-tenth of the full value of a basket of the S&P stocks and trades on the AMEX, just like a stock (SPY). Other characteristics of stocks are also reproduced such as long life (the SPDR Trust lasts into the twenty-second century) and quarterly dividends (cash paid on the SPDRs reproducing dividends accumulated on the stocks of the S&P 500). Even dividend reinvestment is possible, and the units may be traded on the AMEX during regular trading hours. Under normal conditions, there should be little variance in the price of the SPY relative to the S&P 500. (In 2008, the AMEX merged with the New York Stock Exchange. Trading and instruments remain as described.)

These elements, as discussed for SPDRs, are common to all the Index Shares—DIAMONDS, World Equity Benchmarks (WEBs), and others. There are, of course, some expenses and costs to using the Index Shares—a small price to pay for the use of the instrument and generally less than the costs of a fund. Index Shares are also much more flexible for the independent investor. Among other advantages, the private investor can control the tax consequences of his investment, which is not possible in funds.

Other Exchanges have created similar security instruments or derivatives or futures to replicate or track the well-known averages and indexes. Among these are tracking shares or index shares or futures (let us call them “instruments”) on other indexes (Russell, Nikkei, and so on) or options on the futures or indexes until there is a bewildering array of instruments available for trading, investing, and hedging. Among the more important exchanges and instruments traded are the Chicago Board of Trade (futures and options on futures on the Dow); the Chicago Mercantile Exchange (futures on the S&P, Nikkei 225, Mini S&P 500, S&P Midcap 400, Russell 2000, and NASDAQ 100); and the Chicago Board Options Exchange (S&P 100 and 500 options). This, by no means, is an exhaustive list. All the futures and options that matter will be found listed in the *Wall Street Journal* under Futures Prices or Futures Options Prices.

This book does not deal in comprehensive detail with futures and options, but it is worth mentioning these exchanges and their futures and options products because of the facility they offer the investor and trader for hedging portfolios in Index Shares and Average trading, not to mention opportunities for speculating.

Briefly, hedging is the practice of being neutral in the market. That is, one might be long the DIAMONDS and buy a put option on the DJIA at the Chicago Board of Trade, meaning that advances in the DJIA would result in profits in the DIAMONDS, and a loss of premium in the put. Conversely, a decline in the Dow would result in profits in the put and losses in the DIAMONDS. As this area is not the province of this book, this is a highly simplified description of a hedge. Nevertheless, the reader should see and understand that hedging can be an important strategy. Hedging can take the place of liquidation of a portfolio when the analyst recognizes a change of trend or unstable conditions but does not wish to incur taxes or wishes to defer them.

An outline of instruments available for trading and investing

It would be herculean to attempt to list the entire panoply of averages, indexes, futures, and options available for trading—herculean due to the fact new trading instruments are constantly in creation and due to the fact, now operating at internet speed, we may expect the rate of change to accelerate. In addition to those listed above, there are WEBs (meaning that exposure to world markets may be arranged).

In all, approximately 30 or more Index Share units or instruments were available for trading on the AMEX at the turn of the century, in addition to DIAMONDS and SPDRs. Similar instruments exist on the Philadelphia and in Chicago, and others are being created daily. To reduce the confusion, the general investor will probably find the major indices of the most importance. The more instruments one deals with the more complicated the strategy and tactics become. Therefore, the Dow, the S&P 500, and the NASDAQ composite (DIA, SPY, QQQ) are probably sufficient for the purposes of the gentleman (or lady) investor. The Mid-Caps, the Nikkei, and others begin to come into play when the trader begins to try to catch sector rotation, fads, short-term cycles, and so on.

The importance of these instruments: diversification, dampened risks, tax, and technical regularity

It would be difficult to underestimate the importance of these new trading instruments. First of all, they afford the private investor what was previously reserved for the large capital trader—the ultimate in market diversification. The S&P 500 represents stocks comprising 69% of the value of stocks on the New York Stock Exchange. Buying it is buying the American economy. The 30 Dow Industrial stocks represent the most important symbol in the American economy—and perhaps in the world. Investors are well advised to pay attention to both Averages if they would fare well in the markets (Note the plural: *markets*). These two Averages now have the influence or clout that once the Dow alone had to express the state of the markets and stocks in general.

Buying the SPY or DIA then represents the immediate acquisition of a diversified portfolio. And buying the NASDAQ or QQQ gives one immediate exposure to the more speculative and volatile sector of the American economy. Given the long-term bullish bias of the averages and the American economy, it is difficult to argue with this as both strategy and tactics for the long-term investor. This does not mean positions should be taken blindly without thought or not monitored. On the contrary, recall if you will the record of the Dow Theory; even for the long-term investor, bear markets should not be allowed to destroy liquidity and equity value. These questions are discussed at greater length in [Chapter 18](#).

Although we believe these instruments are good vehicles, it is wise to remember Magee's frequent admonition (less important now than when spoken) that it is a market of stocks, not a stock market. Meaning when the tide is flowing down with the Dow and S&P, prudence and care must be used in taking long positions in stocks that are in doubt as to direction. Additionally, it is worth noting investments in these instruments will be less profitable than an astutely chosen individual stock. For example, Qualcomm appreciated approximately 240% (temporarily) in 1999–2000 compared with about 24% in the S&P over the same period. Those who bought Qualcomm at its top and sold it at the bottom of its reaction lost about 75% or about \$148 a share. Traders in Qualcomm tended to obsess and pay hyper attention to the stock, whereas investors in the SPY reviewed it once a week or less or told their computers or their brokers to give them a call if it broke the trendline or entered stops. Then they slept at night and had eupeptic digestion.

Other advantages accrue to the trading of the SPDRs. Ownership of a fund can result in tax liabilities as managers adjust portfolios to reflect changing membership in the fund or withdrawals in capital by irate stockholders. Since Index Shares last into the twenty-second century, the long-term investor has no need to realize gains and pay taxes. Bear markets may be dealt with by hedging with other instruments—futures, options, or proxy baskets of stock, or individual stocks, and accepting the tax consequences of these trades.

John Magee aptly observed before the direct trading of the Averages was possible that the Dow–Jones Industrials were very regular and dependable from the technical point of view. This observation is annotated at some length in comments on Dow Theory in [Chapter 36](#). Therefore, the investor in the Index Shares may have a smoother time technically than a trader of an individual stock.

Summary

The long-term investor and mid-term speculator attempt to capture long secular (as well as cyclical) trends in the markets. They shun frequent trading and capital-eroding

transactions. They recognize that risk fluctuates with time and trend, and they know that frequent turnover benefits mainly the broker.

The strategy of the long-term investor may be to match the market by using funds or SPDRs or baskets, but he does not like to participate in Bear trends. He hedges or liquidates his positions on major trend shifts. In fact, he may even short the indexes if his analysis indicates major bear markets.

If he desires to outperform the market (which will happen automatically if he follows the methods of this work), he finds some individual speculative stocks to trade in addition to his foundation portfolio. Depending on his risk tolerance, he may always be somewhat hedged. When long the indexes, he finds some stocks in downtrends to short. When he is short the indexes, he finds some strong stocks to hold long. There is no excuse for a moderately skilled and reasonably capitalized investor to lose money over the long term in the market.

As a reminder, [Chapters 5](#) and [28](#) describe powerful methods for the long-term investor using Magee's Basing Points Procedure.

chapter twenty-one

Selection of stocks to chart

The trader who operates on the “fundamental” basis, making his commitments on his analysis of earnings, dividends, corporate management, prospects for the industry, and so on, will usually (of necessity) confine himself to a few stocks or a single group of stocks in the same field.

To the contrary, the technical trader, using daily charts, should have a large portfolio of issues. Since he is primarily interested in the technical chart patterns, he will not try to make an exhaustive study of the background of each company. In fact, the characteristics of the stocks themselves, as they act in the market, are more important to him than what these companies make or what they are earning. This is because, although the stocks represent ownership in the company, the capital structure, “leverage,” and floating supply of the stock may (and very often does) mean fluctuations in the stock price that are not directly in proportion to changes in the affairs of the business.

You will also find many cases in which the stock of a well-regarded, well-managed, long-established concern, whose latest earnings report shows increased profits, and with a long record of dividends paid, would not be a good buy at the market price. It may be overpriced and due for a serious depreciation. You will find other cases in which a stock, which apparently represents no great promise of either earnings or dividends, suddenly starts a series of spectacular moves upward, and is indicated clearly as a buy. Of course, the answer, in each case, is the records available apply to the past, not the future; and very often, chart action will indicate the inside knowledge of those who are in possession of facts the public has not yet received.

To change our example to something more easily visualized, let's assume there are two houses for sale. One is a fine, well-built, modern home in an attractive part of town at, say, \$200,000—and the other property, a somewhat shabby six-family tenement in a less attractive section, at the same price of \$200,000. There is no question which is the “better” house, but in a case like this, the market for well-built single homes at this price may be poor, whereas the demand for apartments may be good. The six-family house may be the better investment.

Then again, we have the question of what is conservative and what is highly speculative. It is not always enough to judge from the type of business of the company itself. You may have a highly conservative concern, carrying on a stable volume of business, with a long record of successful operation. Yet, if there are bonds, debentures, preferred stocks, and other senior obligations, the common stock may be subject to wide fluctuations. Also, if the issue is small, or if a large part of it is closely held, you will have a “leverage” effect that results in wide swings in the stock.

Therefore, in choosing your stock to chart, you will want to consider the kind of stock and its character and habits in the market, rather than the business of the concern it represents. We will come back to this point and show you how you can shape up a list that will give you the kind of stocks you want for trading.

Meanwhile, the question “How many charts?” has been left hanging. One answer to this is that the more stocks you chart, the more good opportunities you will have. Many

stocks, even of active issues, will go through long periods when, indeed, there is nothing much to tell. In a period of stability, the chart simply indicates it is a period of stability, and the only possible trading activity would be purchases and sales at the Bottoms and Tops of its undulations. The charts are more informative when a change in the situation occurs; they will signal a change of trend as soon as (and usually before) the news of the changed conditions has come out. If you have enough charts, you will always have some stocks making decisive and clear-cut moves either up or down, at any time.

You should, therefore, keep as many charts as you can. Do not bite off more than you can chew, however. A man with only 15 minutes to half an hour a day for this work might have to confine himself to 20 or 30 charts. It would be much better if he could have 100. If he is in a position to give a major part of his time to the work, he could very well run as many as 300 charts. A most important word of caution is indicated here: Do not start anything you cannot finish. It is better to have too few at the beginning than too many. Then, if you find you can add others, you will be in a better position, from your experience, to pick out the ones you want to include. However, if you start with too many charts or begin to run behind with your analyses, you will not be getting the best use from your portfolio and it would be better to cut down at once. (EN: *Magee's admonitions are still in effect for the manual chartist. The modern computer-equipped investor has a different problem. He can chart every issue in the market every day. The question becomes how many can he effectively study and analyze? There is even a computer answer to this question. Namely, the cyber trader can program the computer to report stocks on an exception basis. For example, "Computer, show me all the stocks which are above their 50-day moving average and which have unusual volume."*)

From what we have already been over, you know it is possible to chart anything that is sold in identical units in a free competitive market. This includes all kinds of commodities, bonds, debentures, when-issued contracts, and so on, as well as stocks. You may have some special interest that will call for charting something outside the field of stocks—well and good.

In general, however, you will want to chart active, listed stocks of well-established corporations. There is no reason an unlisted stock cannot be charted, but ordinarily, the only figures you can obtain on it are the bid and offer prices. On these stocks, you do not have a published statement of the volume of sales each day or any record of prices at which sales actually took place, and those are essential to the charting of daily technical action. Therefore, you will usually be charting stocks listed on some exchange. This is also an advantage because concerns listed on the larger exchanges are required to meet certain conditions, publish certain information, and comply with definite rules and practices.

In this book, most of the examples have been taken from stocks listed on the New York Stock Exchange (NYSE). There are thousands of issues traded on the NYSE, and these stocks represent every type of security, from the most conservative to the most speculative, from the cheapest to the most expensive, and they include every principal type of industry and business. There is no reason, however, that stocks should not be chosen from the American Stock Exchange, the NASDAQ, or from any other exchange in this country, or for that matter, in some other country. (EN: *So far as the chart action is concerned, the patterns and their meanings will be the same.*)

(EN9: *In general the stocks to watch, or chart, will tend to leap out of the haystack of stocks. For stock pickers Investor's Business Daily is in the constant process of sifting the markets for nuggets with its CANSLIM system. (Not a recommendation to use that system, only a recommendation to examine every tool that might be of use.) Stocks that appear suddenly on the most active lists of <http://www.stockcharts.com> might bear examination by the chart analyst. These include optionable stocks that suddenly show a radical change in implied volatility,; stocks that pop up with suspicious*

volume spikes compared with average volume, and those with internet and software packages one might construct a filter to be informed by the computer of stocks breaking their 14-, 44-, 150-, and 200-day moving averages: 14 because some professionals think the public thinks in this time frame; 44 because some think funds think in 44-day time frames. The others because everyone thinks they are important.

In reality, if the investor aim is to beat the market, he may choose just to confine his activities to the ETFs that represent the indices—DIAMONDS™ (DIA), Standard & Poor's Depository Receipts (SPY), and QQQ. ETFs are inherently less risky than any individual stock.)



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chapter twenty-two

Selection of stocks to chart: continued

In choosing your stocks, you will probably look for the greatest diversity in the *kind* of industry. As you are not specializing in the detailed study of a single group, you will try to get stocks from as many different groups as possible. You will want to include mines and oils, rails and chemicals, liquors and amusements, airlines, utilities, techs, internets, biotechs, *ad infinitum*. The reason for this is simply that, very often, many stocks in a particular industrial group will show the same or similar patterns, as the entire industry is affected by certain Major conditions. You will often find, for instance, when Allis-Chalmers (*EN: or Dell*) makes a Triangle or other Area Pattern, followed by a sharp upward move, Deere (*EN: or Compaq*), Minneapolis-Moline, Harvester, and Case will make similar Triangles, or possibly Rectangles or some other Consolidation Pattern, followed by a similar upward move. When Schenley is moving in a long downtrend, you will very likely find that Distillers—Seagram's, National Distillers, Publicker, and American Distilling—are also moving in a long downtrend. (*EN: Metaphorical names, like the names of Greek gods or Ulysses and Leopold Bloom. The present-day reader may read Intel, Fairchild, and National Semiconductor or 3COM. The idea is the same.*) (For an illustration in this chapter, see [Figure 22.1](#).)

Therefore, unless you plan to keep enough charts to include several stocks of *each* important group, it is best to pick your stocks to make up as widely diversified a list as possible. In this way, during times when certain groups are moving indecisively, or are inactive, you will have some representation in other groups that may be active. (Do not infer from this that all stocks of a group move together at all times. Individual concerns will frequently move according to special influences that bear on a single company. Where the Major influence is some industry-wide condition, the group will move more or less as a unit.)

We, therefore, choose stocks representing a wide variety of groups or basic industries. Nevertheless, suppose we are limited as to the number of charts and we must choose one stock from a group; which stock to choose? For instance, we must choose one stock from the transportation group (*EN: or Biotech, or internets.*) As a matter of fact, you would probably want more than one because this particular group is so important and so large, but for the moment, let us choose just one. (*EN9: Or, even better, why not one of the indexes—for example, an ETF—for the desired group. An example of betting on all the horses rather than trying to pick the winner, and there is no conflict between making both bets.*)

Should it be a high-priced stock or a low-priced stock? Let us examine that point first.

If you examine the past records of stocks, you will generally find the lower priced issues make much larger *percentage* moves than the higher priced stocks. It is not unusual for a stock selling around 5 to make a rise of 100%, moving up to 10 sometimes within a few weeks. On the other hand, you do not find 100% moves in days or weeks among the stocks selling at 100 or 200. The same industry-wide move that carries your \$5.00 stock from 5 to 10 might carry your \$100 stock from 100 to 140. Obviously, if you had put \$1,000 into outright purchase of the stock at 5, the move would have increased the value of your stock 100% or \$1,000. In the other case, if you had put the same amount into a stock at 100,

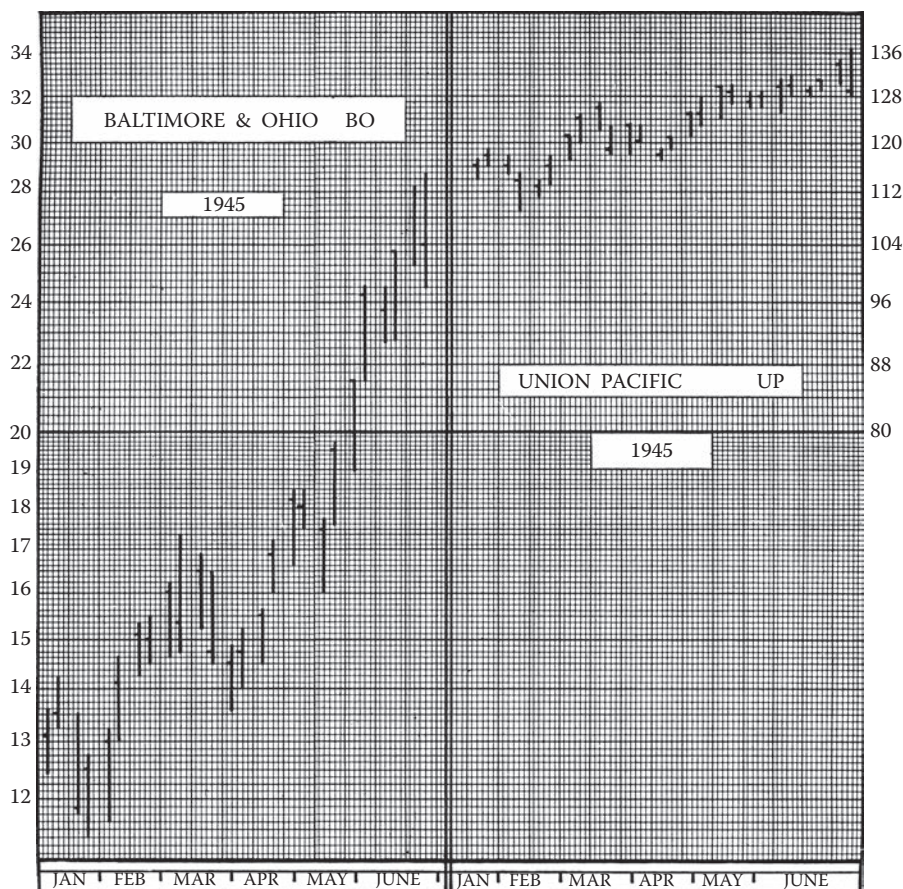


Figure 22.1 Low-priced stocks move faster than high-priced stocks. Here are weekly charts of two rail stocks, charted on ratio scale over the same six-month period. Baltimore and Ohio during this time advanced from $12 \frac{3}{8}$ to $28 \frac{7}{8}$, a gain of $16 \frac{1}{2}$ points, while Union Pacific moved up from 109 to 137, a gain of 28 points. The advance in "UP," however, compared with its price, is much less than the advance in "BO." A thousand dollars used for outright purchase of "UP" would show you a capital increase of 25%. On the other hand, if you had put a thousand dollars into outright purchase of "BO," your increase would have been 133%, or more than five times as much.

Bear in mind low-priced stocks not only go *up* much faster, but also come *down* much faster than high-priced stocks. When you own a low-priced stock, you cannot safely "put it away in the box and forget it." For security and stability, you would do better to buy a few shares of a high-priced, gilt-edge security. For trading purposes, you will want to strike a compromise between the rather sluggish "blue chips" and the extremely erratic "cats and dogs" in the lowest price bracket.

the move to 140 (although many more points) would have increased your capital to only \$1,400. The gain in the lower priced stock would be about two and one-half times as great.

The authors have worked out and tabulated the percentage moves of large groups of stocks over long periods of time (see Appendix A, ninth edition) and have set up a table that shows the *relative* average sensitivity of stocks at different price levels. This table pertains only to the price level of stocks; thus, the same stock that today sells at 5 and makes wide

percentage swings will not swing so widely when it has moved up to a price level of 20–30. (EN10: *These concepts replaced by beta and volatility.*)

Several questions may come to your mind at this point. Do not the costs of trading low-priced stocks relative to high-priced issues have to be taken into account? (EN: *Yes, they do. Given the extreme changeability in these costs in the internet economy, calculation of those costs here would be tantamount to wasting trees. This cost question may be researched quickly and easily given the availability of search engines such as Google and access to the internet.*)

In selecting the price level of the stocks you prefer to trade in, you cannot set too arbitrary a limit because there are other factors to consider and you may have to make some compromises on one score to get what you want in some other direction. Stocks from 20 to 30 are in a good trading price range. Very often, you will find stocks in the 10–20 range that are so interesting you will want to chart and trade in them. You will find good situations in stocks selling at 30–40. Furthermore, you will understand, of course, the stocks that are now selling at 10 may be selling next year at 40, or vice versa. Considering you cannot be changing your portfolio of charts all the time, you must not be too “choosy” in picking the price range of your stocks. You would not ordinarily pick out a stock that was selling far above the price range of most stocks of its group, say at 150, when several others in the same industry were selling at 15, 28, or 37. For the high-priced stock, as we have said, is likely to be sluggish as a trading medium. On the other hand, you would not take the very lowest priced issues of the group, selling at, say, 4 or 2 when others were in the 10–30 bracket. You would not only be faced with erratic and tricky chart action, and much higher percentage costs for commissions, but also you might not be able to operate on margin at all. There are, from time to time, limitations on the amount of margin on stocks at all levels. In the lower priced issues, these limits are often more stringent. Plus, in the lowest priced stocks, you are sometimes not permitted to trade on margin. (EN: *As these requirements are subject to the vagaries of the Federal Reserve Board, the investor must inform himself at his personal broker or ECN. For quite some years, the general margin requirement has been 50%. The Fed came in for some sharp criticism for not dampening speculation in the fin de siècle bubble by raising margin rates to 100%, and its lack of action exacerbated the blow off of 2000. A change in margin rates should get the immediate attention of the technical analyst. Something will be up.*)

Ordinarily, you will get the greatest effective leverage at some point in the 20s, considering all these factors, and your trading can run down through the teens and up through the 40s. Above 40 and below 10, you will have to have strong reasons for trading, which might be, of course, ample capital. It would therefore be best for the moderately financed investor to choose a majority of his stocks from the middle price range (10–40), plus only those special situations you are particularly interested in watching among the very low and very high brackets.

If, however, you will go back to the long-time past record of any group of stocks, you will find that even among stocks moving at nearly the same price levels today, there are widely different behavior patterns. You will find some stocks respond to a severe market setback by reacting, let us say, 20%—that is, if they were selling at 30, they would move down to around 24. Others will respond to the same setback in the general market by a reaction of 50%—that is, if they were selling at 30, they would end up at around 15. Additionally, if you examine the records, the same stocks that make these relatively different reactions in one setback will make about the same moves, relative to each other, in other setbacks. Furthermore, the same ones that make only moderate corrections on declines will make only moderate advances on rises. The ones that go down sharply on setbacks will also skyrocket in a Bullish Market. This has nothing to do with the phenomenon we discussed

earlier, by which we saw that cheap stocks move faster than expensive stocks. This is due to the habits of particular stocks, and these habits seem to be quite stable over periods of many years.

We will find, for instance, volatile and speculative issues that make larger percentage swings than most other stocks at their price level. On the other hand, we will find a stock, selling for much less, that has smaller percentage swings than most stocks at its price level. This fact may be obscured, as the comparatively low-priced stock may actually make larger swings than the higher priced. It is only when we have taken the price level into account that we can see the individual habit of the stock. Knowing this, we can project that habit to other price levels.

We are not too interested, as we have said before, in stocks that do not ordinarily make substantial moves. We are very much interested in those that make the wider moves. We can compute the basic swing power of a stock, which we call the Sensitivity Index, and will outline the method for doing this in Appendix A, ninth edition. *(EN: The procedure Magee speaks of here, of computing a "Sensitivity Index," may be regarded as the historical predecessor of what are now called "betas." The beta of a stock compares its relative volatility with that of the market as a whole, so if the beta of the market is 1.00 and the beta of the stock in question is 1.50, a move of 1.00 in the market will probably be matched by a move of 1.50 in the higher beta stock. The formula for beta will be found in Appendix B, Resources, and calculated betas at finance.yahoo.com.)*

Therefore, you will have eliminated from your list stocks at the wrong price level and stocks without enough swing power (for you want to chart only those stocks in which you can trade profitably). Of the ones left, you will eliminate others and find that some stocks, which make wide price moves and apparently offer large opportunities for profit, may be very "thin." The charts will be spotty, filled with gaps, days of "no sale," and moves of several points on only a few hundred shares of business. These stocks are thin because of a small issue, because of ownership of a large block of shares by some corporation or by insiders, or for other reasons. They are difficult to trade in because they are hard to buy and hard to sell; you stand to lose heavily on the "spread" between bid and offer. It might be hard to liquidate even 500 shares without driving the price down badly, to your loss, and sometimes you will see changes of 1 or 2 full points between sales of single hundreds. These you will want to eliminate, and if you do not know the habits before you choose your portfolio, you will probably find it worthwhile to drop any stocks that prove too thin, substituting new and more dependable choices.

After you have culled the list from all these angles you will find you have left a choice of a number of stocks, all of them selling in a price range that is attractive, all of them sufficiently active and responsive to market trends, and all of them available in sufficient supply to provide a good trading medium. The final choice of any one (or several) of these stocks is then a matter of personal preference.

After you pick out your stocks from one group, study the other groups—the motors group, the amusements, the computers (*EN: the internets*) and so forth, until you have finally made up your selection of stocks to follow. Try to get as complete and balanced a representation of groups as the number of your charts will allow. *(EN: In this context, the process described here is made infinitely simpler by available software and by the proliferation of group indexes, ETFs, and indicators. In fact, if the investor desires, rather than trading an individual stock in an industry group, he may often choose to trade the average or index itself and cushion his risks. This will almost never be as profitable as a well-chosen individual issue but will always be better than a badly chosen individual issue. And ETFs never go broke (so far).)*

In this connection, if you are not planning to represent all groups, there are some groups more likely to provide good trading stocks than others. Foods and tobaccos, for

example, are generally less responsive to market swings than the rails, liquors, and airlines, which are very responsive. Do not worry too much, however, about exactly which stocks to choose for even if you took the first 50 or 100 stocks in the listed issues, you would have among them at least 25 good trading stocks. You can start with almost any list, and, as time goes on, you will drop some and add others, improving your portfolio and tailoring it to your own needs.

(EN: As additional commentary here it is worth noting that “techs,” “biotech” (or whatever the mania of the moment is—probably space hotels and intergalactic travel in this millennium) will present areas of risk and reward sufficient to excite the seventeenth-century tulip trader. The centered investor and trader will consider vogues and manias as he chooses his active portfolio and choose to participate (or not) depending on his appetite for risk and excitement. Or, as the popular maxim has it, one man’s champagne is another man’s poison. This question is pursued in greater detail in [Chapter 23](#).)

By way of further simplification, the investor may choose to follow only one or two issues—Standard & Poor’s Depositary Receipts (SPY) or DIAMONDS™ (DIA). If it were not only bought, but also sold or hedged, the market would be outperformed. This would be a simple investor’s life indeed.



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Choosing and managing high-risk stocks: tulip stocks, Internet sector, and speculative frenzies

Nothing could more vividly illustrate the timeless nature of chart patterns and situations than the internet stocks that bloomed at the turn of the century. These stocks repeated that eternal pattern—the Tulipomania, the Gold Rush, the can't-fail-opportunity-to-get-rich-quick. (For illustrations in this chapter, see [Figures 23.1](#) through [23.17](#).)

It is almost impossible to resist comparing the speculative frenzy that took place in the internet and technology issues to the famous seventeenth-century mania that Holland experienced in the famous Tulipomania. In MacKay's undying classic account (*Extraordinary Popular Delusions and the Madness of Crowds*), the trading of tulip bulbs replaced sober commerce and business as the occupation of the country, and enormous fortunes were made trading the tubers. Blocks of real estate, breweries, assets of real and large value were traded for one tulip bulb. MacKay produced my favorite paragraph in the literature of finance: "A golden bait hung temptingly out before the people, and one after the other, they rushed to tulip-marts, like flies around a honey pot. Every one imagined that the passion for tulips would last forever, and that the wealthy from every part of the world would send to Holland, and pay whatever prices were asked for them."

That mania ended in ruin. A better long-term prospect may be in store for the internet, as there is a basis of technology and economic substance to the sector. You could not, after all, use your tulip to check the market for prices. In fact, there were those, admittedly a small number, who struck it rich in the California Gold Rush of 1849. It is an ill wind, etc.

As an exercise in rueful perspective, the seventh edition of this book remarked, in the words of Richard McDermott,

Companies like Lotus or Microsoft went public and grew into business giants in a short period of time... A significant theme stock for the 1990s has been Internet stocks. Names like America Online, CompuServe, and Netscape have provided important products and services that allow individuals to "surf the net" for information around the world.

Young students of the market will search in vain for Lotus, CompuServe, and Netscape in the lists of stock symbols. The giant Lotus was swallowed by IBM, in part because Microsoft, a ruthless competitor, disemboweled it. CompuServe and Netscape disappeared into the belly of a larger fish, AOL, with some of the same factors involved. Later Microsoft got its comeuppance—halving in value as the U.S. Justice Department brought successful antitrust action against it.

There are those who fault the great Wall Street investment banks for having brought half-baked potatoes (or unblooming tulips) to market. The Street firms, cashing in on the mania, were willing to sell the public every immature profitless idea and company named

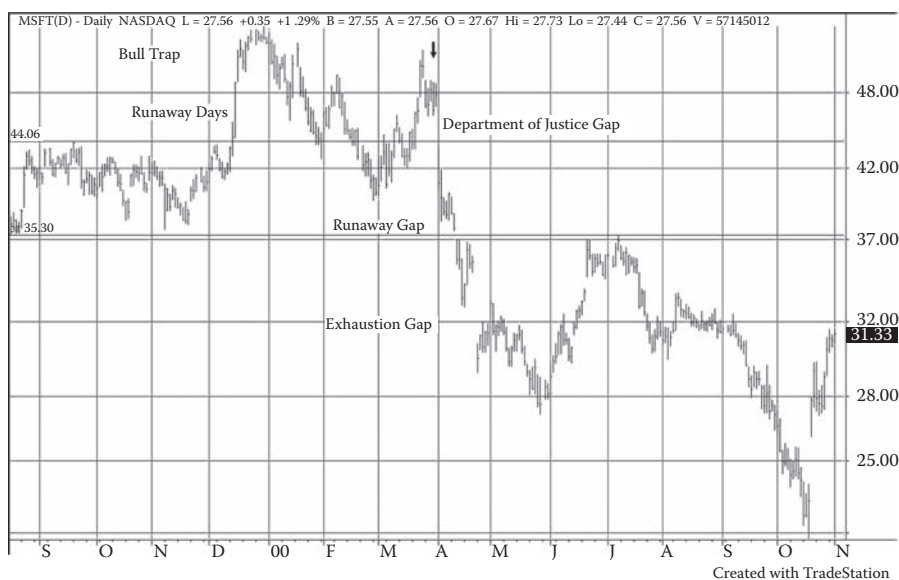


Figure 23.1 Multitudinous lessons in Microsoft. However, short-lived joy. The top rounds over, price makes another attempt, and then the momentum is clearly, if puzzlingly, down. The cancellation of the runaway day in January definitely marked this move as a bull trap, and the short-term trendline from October would also have taken the trader out of the trap. Use of the Basing Points technique (see [Chapter 28](#)) would also have allowed escape from the trap. Failed signals, as this one, often are excellent signals for a trade in the other direction.

“dot.com Inc.” that venture capitalists floated on a sea of seed money. Mining engineers will recognize the phenomenon of “salting the mine.” It was the finest moment for the great old firms of the Street since the investment trusts of the 1920s. The reader is most recommended to look into *The Great Crash, 1929* by John Kenneth Galbraith to compare the Street firms’ behavior from one mania to the next. It will be found most edifying. At the pinnacle of great manias, no one can be trusted.

Managing tulipomanias and Internet frenzies and...Bitcoin

In a time of excess, the centered investor maintains his composure and focus. Probably easier said than done. Nonetheless, many investors and traders profited from the internet boom or were not severely damaged. Many managers and traders watched with envy from the sidelines, and with *schadenfreude* when the bubble burst.

For technical analysts speculating and trading according to the principles of this book, important opportunities arise in speculative frenzies and buying panics—namely, important profits may be made by remaining calm and methodical while the uninformed and naïve cause speculative blow-offs, which have some things in common with the ends of great bull trends in substantive issues.

The question becomes that of realizing some of the profits to be made in these exciting times. Of course, the first thing to do is not get excited. These manias come and go—sometimes they are called biotechs, sometimes computers, sometimes internets, and probably, at some point, human genome miracle drugs or Martian real estate. It should be emphasized these profits are made on both sides, long and short. The crowd will only

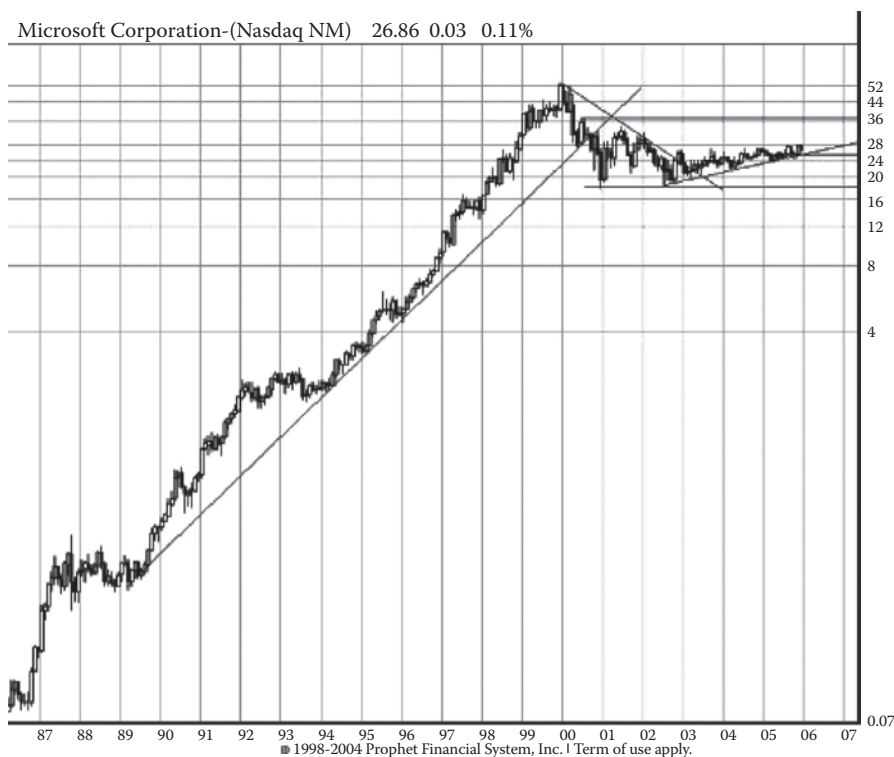


Figure 23.2 MSFT monthly. It is easy to lose perspective when looking at a daily chart of a bull trap in which one has lost a leg. A monthly long-term look at Microsoft can help restore perspective. Unfortunately, the Dow-Jones Company was looking at this chart, not the nearby, when they added Microsoft to the Dow 30 in 2000. Expert timing? At the time, the John Magee Newsletter observed it was a negative indicator of a major top in the Industrials.

think of the riches to be made long. Professionals and skilled technicians, professional or not, will take the profits on the short side.

Here is the most important concept in trading these runaway issues: *all of the techniques and methods described in this book remain valid for dealing with these kinds of stocks.* In addition, here are some other points that should be taken into consideration. *The best way to control risk in the Bitcoin market is by trading a position so small (like a roulette bet) that a 100% loss will cause no distress or discomfort.* The sector in question, tech-tech, web-tech, biotech, internet, space travel, whatever, will be a market unto itself, and special technical factors will apply to it. The phases of market lives, accumulation, attraction, markup, mania, and blow-off will occur in compressed time spans—much shorter than the cyclical life of an issue with fundamental data to attach it to reality (see [Figure 23.4](#) of Palm Computing).

By the time the IPO occurs, the insiders are already prepared to begin the distribution phase. For example, when Palm Computing was spun off from 3Com in 2000, only 3% of the shares were sold—creating an artificial scarcity and propelling it to absurd heights—Palm attained an instant market value greater than that of 3Com, which owned most of its stock. (EN9: *We have, since The Fall, learned of “laddering.” To let their inside clients in on the IPO, some of the underwriters required the clients to buy more of the stock in the open market after the IPO at higher prices. A clever way to throw gasoline on a raging bonfire. Whether Palm was laddered or not is not known.*)



Figure 23.3 The editor learns a lesson. Never leave a chart unanalyzed, even if the implications are obvious. Also, never be afraid to belabor the obvious. Obviously, this figure should have had a long-term trendline drawn on it. No monumental bull market should be ignored. Why give the market its money back? It should have been obvious from this figure that the Microsoft party was over and not just the fat lady but the entire chorus was beating on anvils. Plus, the protective line must be drawn. Here the broken line at A is the most important and saves a bit of capital rather than waiting for the plaintive signal at C. Given the robust Bull Market in Microsoft, the long-term investor might have been justified in waiting until the C trendline was broken. A matter of investing style and philosophy. There appears to be some long-term support at 18. The five-year sideways market appears to be resolving itself into a macro triangle that might break out one way or the other in 2005. This is a case in which an investor might make a fundamental analysis to guide his position (always confirming with the chart analysis). Microsoft is beset with howling wolves on all sides. Linux, Unix, sales of only one copy of Windows in China, hackers playing hob with security holes in its software. Can it rise again? Only the chart knows for sure, and it is silent at this recording. In 2011, MSFT was in an 11-year sidewave.

These issues must be traded with the utmost care and attention. For example, it is the height of foolishness to enter a market order to buy on the issue of the IPO. An issue going public at 12 might trade on the opening at 50 in these frenzies—a sign to the savvy technician the sheep are headed for the shearing shed.

Certain factors must be kept in mind. Some IPOs collapse shortly after going public. Others rocket off before distribution is complete. So stops must be carefully computed. Once it is clear the rocket is taking off, as indicated by price and volume, some discreet pyramiding might be possible for the experienced and skilled speculator.

Detailed techniques for management of the runaway issues

The technique described in [Chapter 28](#) for tight progressive stops is certainly one way of dealing with these stocks. There, the method for finding Basing Points and raising stops based on the three-days-away rule is detailed. Also, especially in the case of these rocket stocks, the practice of raising stops based on new percentage highs should be

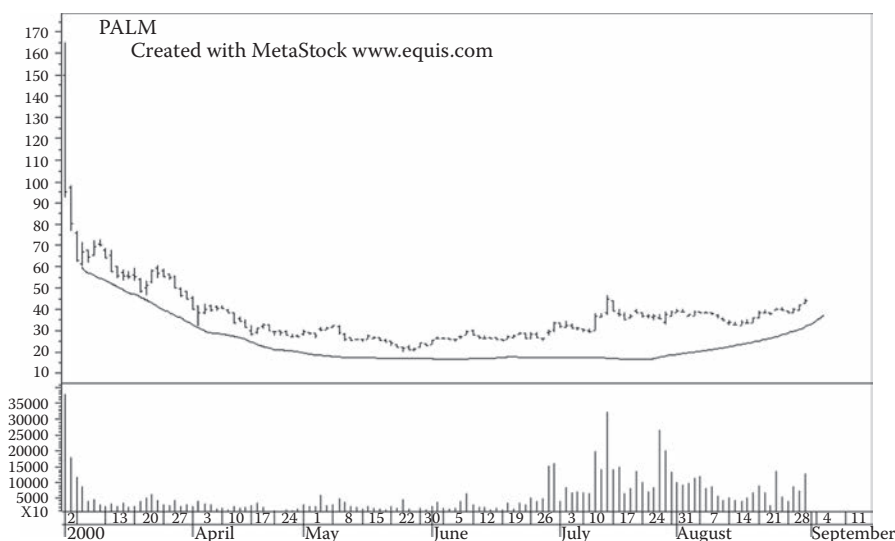


Figure 23.4 PALM. Fool's gold. Fool's gold with naiveté writ large on it. Here is a spike reversal day on the initial day of trading. The accumulation, markup, and most of the distribution occurred behind closed doors before this trick was perpetrated. After the *matanza*, the continuation takes on the shape of a rounding bottom. Perhaps there is some real gold there—but only over the long term.



Figure 23.5 Dealers palmed all the missing capital in PALM? Somebody made the money disappear up a shirt sleeve. What makes you think the stock was stacked? Or that the initial public offering (IPO) was laddered? Maybe it was just fools chasing tulips. Those investors (gamblers) playing the shell game with PALM found themselves playing with six shells instead of three as like an insidious amoeba PALM divided into two tulips, PLMO and PSRC. Keep your eye on the magician closely. For the analyst, all the smoke and mirrors could not hide the fact gravity took PALM in all its manifestations down. The downtrend lines are broken in 2003 and 2004 and a respectable Kilroy Bottom is made. Nevertheless, the implications of the bottom may have already been carried out. A continuing story for speculators or astute (very astute) investors who know something fundamental and have very long-term vision.

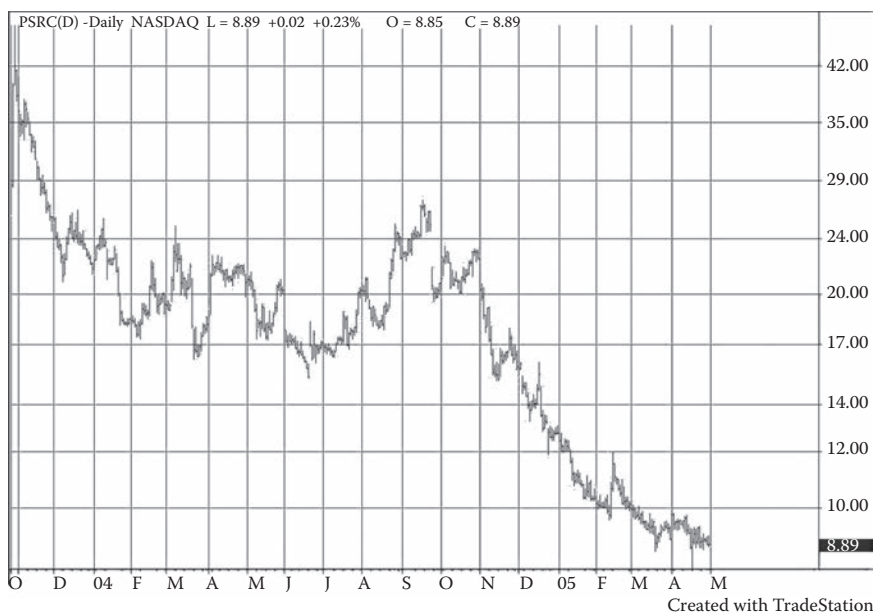


Figure 23.6 PSRC in its amoeba-like glory. The failure of what might have been a rounding bottom, especially with the breakdown gap in October and the failure to rally back to the neckline left no doubt as to the fate of PALM by any other symbol. Broken trendlines are also indicative. Remember that any large pattern can be broken down into smaller patterns susceptible to short trendline analysis, as in this case. Sooner or later a palm-size computer, PDA, widget device is going to be the wave of the future. (*EN10: A visionary prediction of the iPhone.*) The canny investor will not mistake the company for the stock and will also not venture capital until there is a better chart story.

implemented. Since these are “game” situations, and irrational, one may employ tactics he might not ordinarily use with his serious capital—some light pyramiding and some scaling out of the position based on continuous new highs. Additionally, in the blow-off phase when close monitoring is necessary, one might want to exit on a long reversal day, or on a key reversal pattern, and then go to the beach; or, if from Texas, one might want to short the issue.

Essentially, I view these stocks as interesting aberrations in the early part of their lives. So I would not look for long-term investment-type trades. Take the money and run. In all likelihood, these stocks will explode like fireworks and then expire. There will be the companies like Microsoft and—it remains to be seen—Yahoo!. After the fireworks show, the patient technician may return to the scene of the crime to see whether there are any burning embers. Once they have blown off, crashed, and made reasonable bottoms, then one begins to look for investment possibilities, which there definitely will be. There is too much potential in the technology of the internet—and biotech and the human genome—for some phoenix not to rise from the ashes.

In the beginning it behooves the trader to regard them as speculative instruments of exceptional risk and opportunity.

Several caveats are in order:

- The prudent speculator does not commit too much of his capital to such enterprises. Probably no more than 5%–10%.



Figure 23.7 COMS. Underwriters cleverly doled out only 3% of 3Com-owned Palm stock onto the market at the IPO. Palm wound up “worth” more than 3Com for a short time. Here the lesson of tulipomania is vivid. The contrast in before and after volume. The necessity of analysis to deal with tulips in bloom. The fatal lesson of heeding (or not heeding) gaps across horizontal trendlines. Impossible to manage for the buy-and-hold investor.

- When selling them short, one should not be early. A definite top should be seen because there might be a second stage of the rocket.
- Emotional involvement with tulips and internet stocks—or stocks of any kind actually—can lead to a broken heart. In the charts, note the success in a number of cases of trading the key reversal day.

(EN9: Reviewing charts from the apocalypse is a sobering experience. So many rash and mad adventures. So much capital sucked into the black hole of underwriters and 21-year-old huckster CEO wallets. Better than the South Seas Bubble. And, as definite proof that man is directly descended from geese and sees no farther ahead than the next feeding bowl, the ghost of the mania oozes from the closet in 2005, reborn as Google mania. Man (or goose if you will) never learns. That is why he is so much fun to watch.)

Google—what a creature is man! What a game is the market! Google, a wonderful company, and a great concept goes public in 2004 after world-class hype (world class? intergalactic class!). Floated as a red herring at 135, it eventually goes IPO at 85 in an innovative public offering. Then the fun starts. Future readers of this book may observe the markup made as of the date of this writing (November 2004) and judge whether the method worked. A company on roller blades, impossible to dislike as a company. Remember, unless you are Warren Buffet, you are buying the stock, not the company.



Figure 23.8 ORCL. True to the character of stocks during the Tulipomania, Oracle was difficult to handle without careful analysis. Stock splits preceded a number of the sell-offs (note gaps post splits). Bullish gaps are also frequent here, and the tulip top is obvious, and was at the time. An excellent trading vehicle though a wreck for the casual investor.

Hope springs eternal and there is one born every second

One might have thought the age of the tulip was over as we moved into the second decade of the new millennium—but what naiveté! Not over at all. Investors rushed into the LinkedIn and Groupon IPOs and stood quivering on the sideline begging for Facebook to go public. But Facebook, the ultimate practitioner of chutzpah, satisfied itself by feeding on the venture capital community, demanding ever higher valuations from venture capitalists desperate to own a sliver of the deal at whatever cost. The public will have to wait to be shorn. But have faith, it will be. Remember Palm.

You can buy these things, but you have to remain glued to the screen and the ride will be rough. Unless you have your professional speculator's license and have lost money on these deals before, watch the snake pit from the sidelines—and do not buy any snake oil.



Figure 23.9 INKT. The pleasures and delights (and disappointments) of internet stocks. The last trendline, in conjunction with the second horizontal trendline, clearly marks the end of the party (AND WILL FOR ANY STOCK WHATSOEVER). The break of the long-term trendline is the last exit signal, as if the previous signals were not clear enough. Is it not obvious that this issue was (and is) manageable with technical analysis?



Figure 23.10 EMULEX (ELX). The message of 2000, a severe drubbing, and precipitous at that, would have been lost on the non-technician. Those who continued to ride the roller coaster relearned a lesson some technicians know—stocks often repeat the same behavior (or misbehavior). The lesson of monster breakaway gaps (or air gaps) may have needed relearning also. Oh well, after such a gap the damage is done, the unenlightened investor says, only to see the damage continue down to 10 (from 110!). These are signals of such magnitude that disaster awaits the trader who denies its significance. The air gap here nicely complements those of [Figures 12.9](#) and [37.43](#).



Figure 23.11 Amazon weekly. Amazing Amazon dances in the internet follies. The breathtaking plunges are the direct result of the breathtaking speculative excess. See the daily chart ([Figure 23.12](#)) for a closer look at the details of the blow-off.



Figure 23.12 Amazon daily. In cases of speculative blow-off, trendlines are of little use. A dozing trader (presumably it was obvious this was not an investment issue) would have been mauled in the plunge. An alert trader, knowing that in blow-offs the procedure is to sell strength, might have avoided it. Other techniques include recognition of the second exhaustion gap and exit. Also, a trader using the techniques described in [Chapter 28](#), setting progressively tight stops, might have avoided the fall.



Figure 23.13 The wild frontier of the internet and of the gunslinger speculators (gamblers?). Amazon bucks on. Give us a slug of rotgut whiskey and get out the ruler. A clear top for the rational analyst with clear broken trendlines and broken horizontal lines and then a clear Bear Market with a clear bottom resembling a Kilroy Bottom and then a clear breakout and another Bull Market and then another downtrend. Talk about your fearless bull riders down at the rodeo. But this Bull–Bear is rideable with a little technical analysis. Without technical analysis it is like being the target in a shooting gallery—a sitting duck.



Figure 23.14 CISCO (CSCO). Although the first long-term trendline beautifully intercepts the downtrend in progress at a gap (a coincidence of indicators that occurs too often to be a coincidence), the trendlines drawn later are of such strength that even the novice analyst should know how to exit. In fact, one of my students, an employee of Cisco, did just that, saving himself thousands of paper dollars in this very case.

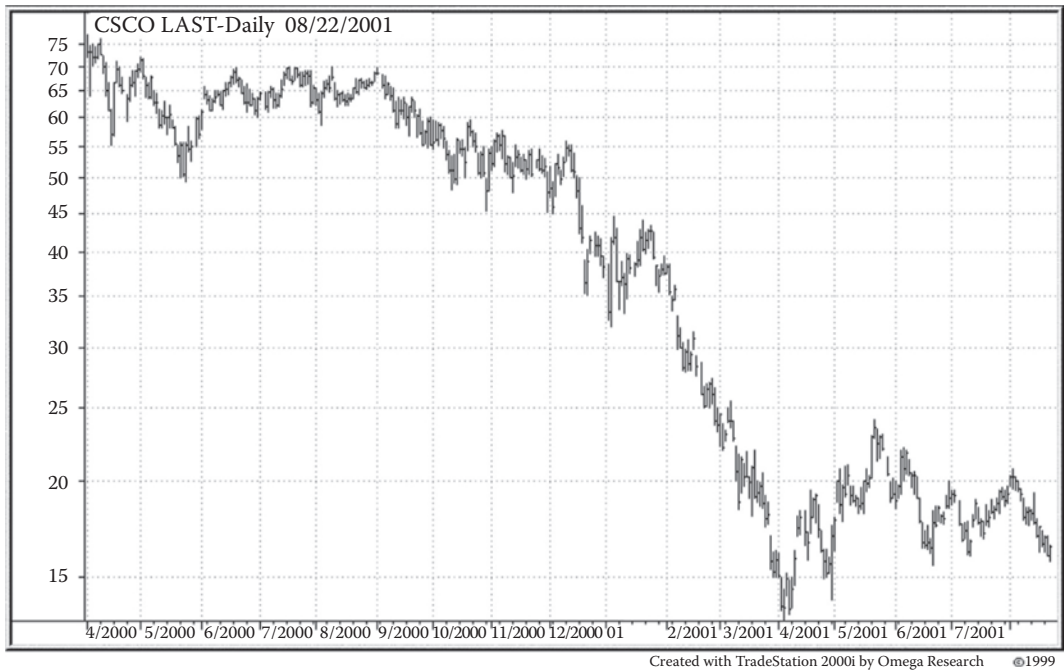


Figure 23.15 Is there any way the trader (investors keep away) could avoid stepping off this cliff? Extreme paranoia is one way. Another way is by being acutely conscious of the pattern of behavior manifested by Cisco in [Figure 23.14](#).



Figure 23.16 You thought all the tulips and Bulls had been exhausted in the Tulipomania in 2000? Silly you. There is an inexhaustible supply. All you need is a company and a story and an underwriter to peddle it. Sometimes there are even earnings. Sometimes the earnings are even real. Sometimes the earnings are skating uphill on roller blades. Then sometimes the characters are so appealing that you are almost willing to buy the IPO at face value, but not if you are a cynic, as are all technical analysts. Google was rumored at \$200 or more on the IPO. The editor offered to sell all of it at that price and throw in the Brooklyn Bridge for free. This offer (well, there may have been other factors also) knocked the IPO down to \$85 (still an errant speculation), but only insane, not unreasonable. The oversubscription in an innovative offering revealed that the tulip virus was not dead, but very much alive and infecting not just the same old suspects, but many new ones. We love a horse race, and this is a great one. Notice the obvious defensive lines and support and resistance. How long Google can defy gravity (a galactic price-earnings ratio) remains to be seen. Prudent gamblers will have a stop identified. On this chart, for the long-term gambler, it might be in the 182 area. For the more agile gambler, it might be failure of the support around 204, or closing of the breakaway gap there. No opprobrium is attached to the term gambler. In fact, bolder investors (competent readers of this book) should take a flyer from time to time with about 5% of their capital. This is the flyer that should have been taken. The breakaway gaps in October and April, operating against disbelief, were signals of enormous technical strength. And Google went to 475! The lesson here, which must be learned and relearned and ... *ad infinitum* ... is this: trust the chart. Ignore the story. In 2008, GOOG went to 700, halved in the Bush Bear Market, recovered to 600, and entered a two-year sidewave.



Figure 23.17 Google, 2011. Google turned out to be the real thing and had a herd of cash cows that produced and produced and produced. Mother's milk? Or America's love affair with advertising? Whatever, the reader can see the simple-minded management of the issue with trendlines. Using trendlines would have avoided bungee-like equity, which is never pleasant. Basing Points might have been used the same way with the same effect. GOOG has essentially been in a large sidewave (very large) since 2010. The exit from this sidewave should have dramatic consequences—up or down.

chapter twenty-four

The probable moves of your stocks

At first glance, all stocks appear to move helter-skelter without rhyme or reason, all over the lot. All stocks go up at times, and all go down at times—and not always at the same time. We already have seen in these rises and falls stocks do follow trends, make various typical patterns, and behave in a not completely disorderly manner. (For illustrations in this chapter, see [Figures 24.1](#) and [24.2](#).)

It is also true that each stock has its own habits and characteristics, which are more or less stable from year to year. Certain stocks normally respond to a Bullish Phase of the market with a very large upsurge, whereas others, perhaps in the same price class, will make only moderate moves. You will find that the same stocks that make wide upward swings are also the ones that make large declines in Bear Markets, whereas the ones that make less spectacular up-moves are more resistant to downside breaks in the market. There are stocks that ordinarily move many, many times faster than others. We do not know, for example, whether a year from now Glenn Martin (*EN: read, Microsoft, eBay*) will be moving up or down, but we do know, and it is one of the most dependable things we know, whichever way it is going, it will be covering ground much faster than American Telephone and Telegraph. (*EN9: Even T accelerated into hyperspace after its unfortunate divestment of local Bells. And, unlike the leopard, completely changed its spots.*) These differences of habit, of course, are due to the size of issue, floating supply, nature of business, and leverage in the capital structure, matters we have touched on briefly before. As a matter of fact, we are not especially concerned with why the differences exist. We are interested mainly in what the differences are, and how we can determine them.

This is important: stocks that habitually move in a narrow range, although excellent for investment purposes in cases in which stability and income (dividends) are the chief desiderata, are not good trading stocks. A fairly high degree of sensitivity (*EN: volatility*), with wide percentage moves, is necessary to make possible profitable commitments that will cover costs and leave a net gain. To be in a position to make a profit, you should see the probability of at least a 15% move in your stock.

How then are you going to tell which stocks are most sensitive and potentially most profitable?

By examining the record of a certain stock for a number of years back, and comparing the percentage moves it has made with the percentage moves of the market as a whole, you can obtain a fair picture of that stock's habits. You will not be able to say, at any particular moment, "This stock is now going to move up 25%," but you can say, with a good deal of confidence, "If the market as a whole makes an advance of 10%, this stock will probably advance about 25%." Or, conversely, "If the market goes down 10%, this stock will very likely go down at least 25%." (*EN10: The concept of beta.*)

Many methods have been used for measuring and checking these percentage-move habits, differing only in detail. (*EN10: With the ready availability of desktop and internet software, the investor may call up a two- or five-year chart and see the potential range of the stock at hand.*) Indexes on several hundred important stocks listed on the New York Stock Exchange have been computed by the authors and are presented in Appendix A, ninth edition.

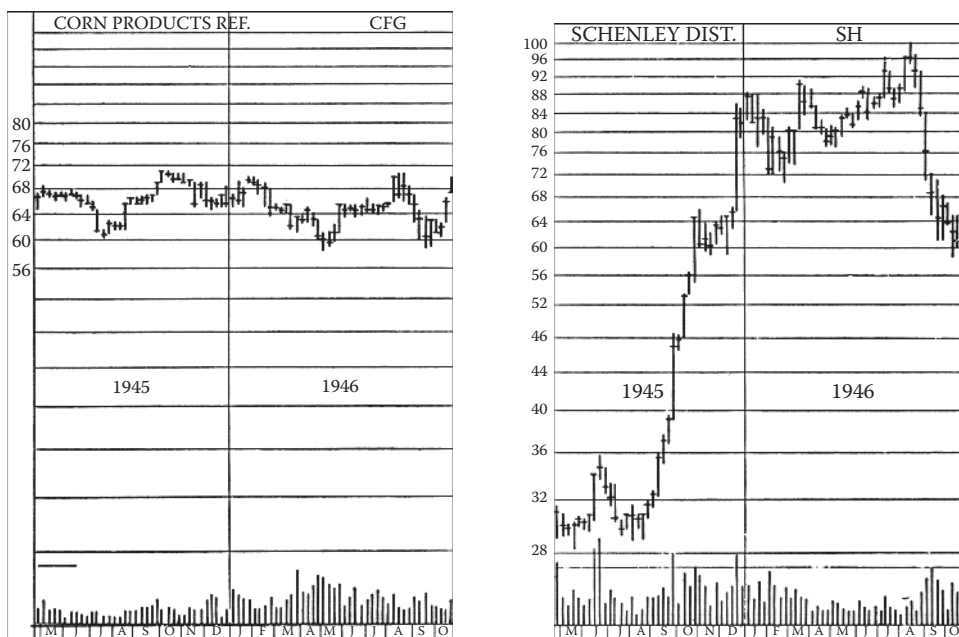


Figure 24.1 Some stocks move faster than others. We have already noticed that low-priced stocks have much larger percentage moves than high-priced issues. Yet, even between two stocks that may, at a particular time, be selling at the same price, there are enormous differences in their habits. Furthermore, these habits change very little from year to year.

Here we have a weekly chart of Corn Products Refining Company (left), covering an 18-month period in the years 1945 and 1946. We also have a chart of Schenley Distillers (right) for the same period. The average price between the high and low on these charts is about $64\frac{1}{2}$, the same for both stocks.

However, during this period, we see “CFG” moving between a low of $58\frac{1}{2}$ and a high of 71, a range of $12\frac{1}{2}$ points, while at the same time, “SH” has moved between $28\frac{1}{2}$ and 100, a range of $71\frac{1}{2}$. A thousand dollars put into an outright purchase of “CFG” at its extreme low would have grown to \$1,210 at its extreme high, whereas the same amount used for outright purchase of “SH” at its low would have grown to \$3,510. Your gain of \$2,510 in “SH” would be more than 10 times the gain of \$210 in “CFG,” and this without using margin.

It is not likely you would actually purchase either stock at the extreme low, nor sell at the extreme high. The point we are bringing out here is there are enormous differences in the swing habits of stocks.

(EN10: Magee’s concept of “sensitivity” appears to combine some aspects of our modern concept of beta and modern computation of volatility. The replacement for Magee’s Sensitivity Index is readily available at finance.yahoo.com and <http://www.abg-analytics.com> as well as any number of other sites findable by Google.)

Individual stocks have their characteristic habits, as do some entire industries. In general, the food stocks, of which “CFG” is one, are stable and slow-moving. On the other hand, liquor stocks make wide moves on any general advance or decline of the market. At this time “CFG” had a Sensitivity Index (EN9: or beta equivalent) of 0.58, whereas Schenley’s was 2.05.

(EN: Current-day betas or volatilities may be compared with these and/or substituted for them in other computations suggested in this book, for example, in Composite Leverage formulas. The reader

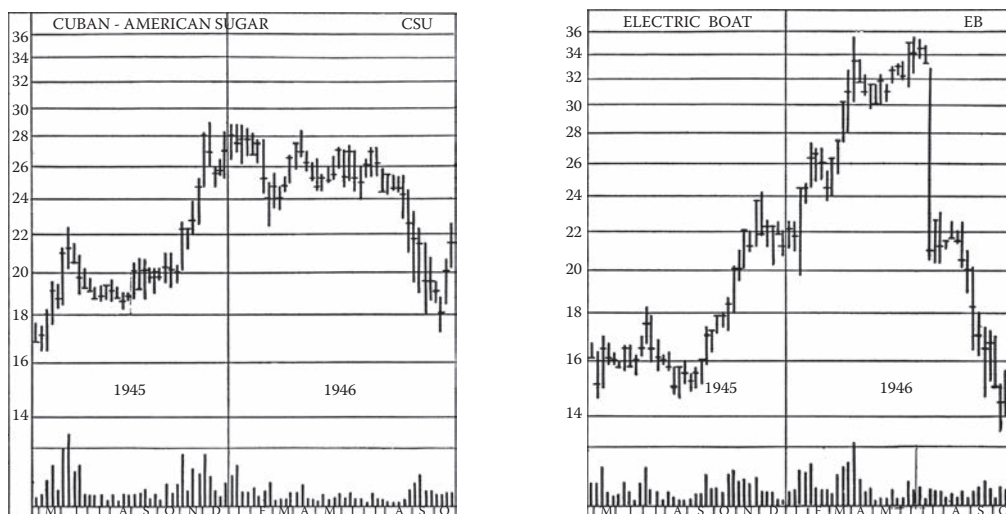


Figure 24.2 Another example of the difference in swings between stocks. In this case also, the stocks show the same average price between the high and low of the period, and both stocks are plotted for the same 18 months in 1945 and 1946. Although in a lower price range and even though the disparity in their Sensitivity Indexes is less, there is a considerable difference in their actions. Cuban-American Sugar (left), a food stock, shows a range of 76% from its low of 16 1/2 to its high of 29, whereas Electric Boat (right), a shipbuilding concern, advances more than 140%.

may read in the following text “beta” for “Sensitivity Index” and avoid the annoyance of excessive notation by the editor.)

The Indexes are relative. They show stocks with a high Sensitivity Index (EN: *beta*) will move much faster in either Bull Markets or Bear Markets than stocks with low Indexes, and about how much faster, relative to the other stocks.

(EN: As is obvious to the experienced reader, and new to the inexperienced, Magee’s method predates the modern compilation of betas and volatilities. Beta measures the systematic risk of a stock, or for those who are not into financial industry jargon, the sensitivity of a stock to the market. Volatility measures the dispersion of returns in the stock itself. Thus, if the market moves 1 point, a stock with beta of 1.5 will move 1.5 points. A stock with a beta of 0.5 will move 0.5 points, approximately or more or less. Not surprisingly, high beta stocks are volatile. For readers who like to roll their own, I offer here the formula for computing the beta of a stock, which is somewhat more sophisticated than Magee’s method:

$$((N)(\text{Sum of } XY)) - ((\text{Sum of } X)(\text{Sum of } Y))$$

where

N = the number of observations,

X = rate of return for the S&P 500 Index,

Y = rate of return for stock or fund.

The general investor may not be avidly interested in this calculation, especially when the beta is readily available at Value Line and finance.yahoo.com and is published regularly by Merrill Lynch. Betas litter the internet, found by searching Google; seekingalpha.com has lists; and finance.yahoo.com displays the stock beta in “Key Statistics” for each stock covered.

Of equal or greater importance is the individual risk of a stock that professionals like to determine by computing its volatility. Somewhat akin to Magee's "normal range for price," volatility measures the variability of a stock's returns (price movement). The general investor should be informed the study of volatility is an extremely sophisticated subject, and professionals expend enormous resources dealing with the question. Numerous methods are used to derive volatilities, but these mainly come into play in options arbitrage and professional trading on exchange floors.

For the private investor, it is sufficient to know of the dangers of this arcane area. Before venturing into "volatility plays," the newcomer should take a postgraduate course. For the general investor who wants to know enough to calculate his own volatilities (not recommended or necessary), I note the formula here:

To calculate volatility, first find the difference between each return and the average. Then square each difference and add them together. Divide the sum by the number of returns minus one. This result is known as the variance. Finally, take the square root of the variance to get the volatility. Combining these steps into a formula:

$$\sigma = \sqrt{\frac{\sum_{i=1}^n (R_i - \mu)^2}{n - 1}}$$

- Step 1: Calculate the average return.
- Step 2: Calculate the deviation of each return.
- Step 3: Square each period's deviation.
- Step 4: Add them together.
- Step 5: Divide the sum by the number of periods – 1. This is the variance.
- Step 6: Take the square root.

The less punctilious (or more practical) investor may find volatilities at <http://www.optionstrategist.com>, <http://www.cboe.com>, and finance.yahoo.com, as well as other locations that can be located by searching on Google.)

chapter twenty-five

Two touchy questions

This chapter is directed largely to the new trader, to the investor who has followed other analytical methods, and to the investor type who is now, for the first time, taking up the technical trading of stocks for the shorter term.

The use of margin

The first question here is the use of margin. There are many people who, knowing of the disastrous margin calls of 1929 and the staggering way losses can be multiplied against one in a margined account during a sharp break in the market, take the attitude that the use of margin is intrinsically bad, dangerous, foolish, and unsound. They will tell you they are willing to risk their own money, but they never speculate on borrowed funds. They will tell you that by buying securities outright, they are safe against any kind of break in the market.

There is something to this line of argument, although very often you will find the arguer has not really thought the case through all the way. If he had, he might realize that, in buying outright stocks that are sensitive or highly leveraged, he is accomplishing almost exactly the same thing as someone else who buys more conservative stocks on a margin basis. Very often, despite his feeling that outright purchase is more conservative than margin buying, he is a speculator at heart. He is not really interested in dividends and a stable investment. Rather, he is looking for “something with appreciation opportunity.” Considering he is not facing the issue squarely, he may fall into expensive errors.

To be thoroughly consistent here, a man who shuns the risks inherent in margin trading should shun the risks of leverage and volatility. He should avoid risk, forget “opportunity for appreciation,” and confine himself to sound, income-producing stocks of a sort that will not fluctuate widely.

If we are looking for stability, we do not want excessive fluctuation and there are securities that provide stability. In this work, however, we are looking for “swing power.” We want the highest degree of fluctuation we can handle safely. We can secure this by buying outright a stock that is normally subject to fairly broad swings—that is, a stock with a high Sensitivity Index (*EN: beta*). We can get the same effect by trading in a stock of more conservative habits but increasing the Composite Leverage (*EN: or simply leverage*) by using margin. (The method of computing and comparing Composite Leverages in various situations is covered in Appendix A, ninth edition and may be studied in [Chapter 42](#).)

Let us assume, for example, we will buy 100 shares of a rather speculative stock, which we will call UVW, on an outright basis. It has a Sensitivity Index of 1.50, and now sells (let us say) at 20. At the same time, we buy a somewhat less speculative stock, XYZ, also selling at 20; but in this case, we buy on 70% margin, putting up only three-quarters of the value of the stock. In a general advance affecting both of these stocks, the probabilities would favor a somewhat greater percentage move in UVW than in XYZ. If such a general rise should bring UVW to 30, we might expect XYZ to rise to a lesser degree, say to 28. Now the advance of 10 points on the \$2,000 invested in outright purchase of UVW will represent a gain of \$1,000 or 50%. The advance of XYZ to 28 on the \$1,400 invested at 70% margin will mean a

gain of \$800 or 57%. In other words, we have, by the use of margin, increased the effective leverage of XYZ; we have made it, in fact, slightly more speculative than UVW.

The effect of margin use is simply to accentuate or increase the sensitivity of a situation. It is a mechanism for assuming more risks and, therefore, more opportunities for faster gains. Assuming you are willing to assume risk (as you must be if you intend to make speculative commitments), it is simply a matter of knowing approximately what risks you are taking and whether you can afford to take them. The danger in margin lies in cases in which the customer grossly overextends himself, taking on a risk far beyond his ability to protect himself. This will not happen if he sets a reasonable limit to his total leverage (EN: *put another way, his portfolio risk*).

The margin transaction is simply a matter of buying (or selling short) more stock than you have money to pay for in full. The purchase of a home on a mortgage is essentially a margin transaction. The financing of business operations, using borrowed money for part of the capital, is the same. The buying of anything for which the purchaser puts up part of the capital and borrows the rest, using the value of the purchased property as security for the loan, is exactly similar to the trading of stocks on margin. In each case, any change in the value of the property will cause a larger net change in the value of the *margin* capital. Thus, if a man buys a home for \$100,000, paying \$50,000 cash, and later sells it for \$150,000 (an increase of 50% in the value of his property), he will benefit to the extent of \$50,000 profit, or 100% on his invested capital.

The question of margin calls, being “wiped out” on margin transactions, will seldom, if ever, come up if you protect yourself properly by maintaining stops at all times or by closing out the transaction when it has violated certain predetermined danger points. Needless to say, if you have allowed a trade to go so bad it reaches the minimum margin maintenance range, the best thing is to take your loss and forget it; not try to meet the margin call. Yet again—this need not ever happen.

As we will see in discussions of sensitivity and leverage, stop levels, and so on, there are certain limits that can be fairly well defined, beyond which you cannot safely venture. If you could buy stock on a 10% margin, as you could at one time, you might have visions of highballing \$1,000 up to \$1 million in one Bull Market; that is not a reasonable hope and it is not safe to risk your capital on a 10% margin because, in many cases, your perfectly logical purchase would sag enough to wipe you out entirely before going ahead to the normal advance you expected. (EN: *In a nutshell, the risk of trading commodities and futures.*) In judging how much margin you can or should use within the limits of margin trading laid down by law, you must take into account the method of trading you are using, the amount of adverse fluctuation you must expect in the normal operation of your method, and the nature of the stock you are dealing with, that is, its Sensitivity Index and Normal Range-for-Price (EN: *at the risk of being repetitive, beta and volatility*), at the time you make the original commitment.

Short selling

The other touchy question is that of short sales. A majority of traders avoid the short side of the market. Six out of seven investors you meet, who have bought or sold stocks, will tell you they would never sell a stock short under any conditions, at any time. In fact, short selling is limited, very largely, to skilled professionals. (EN: *The private investor, because of his fears and prejudices, voluntarily grants this “edge” or advantage to professionals. Magee dealt with this subject at length in Winning the Mental Game on Wall Street, which I wholeheartedly recommend to the reader.* EN9: *The widespread proliferation of hedge funds in the new century*

attests to the frustration of professional managers with mutual fund rules requiring them to maintain only long positions. Even with this development, short selling by the general investor remains a limited technique—to the disadvantage of the nonprofessional.)

Now, if you have studied long-term charts (weekly and monthly), and the daily charts in this book, you will recognize several facts about the action of markets. Most stocks go up most of the time. There are almost always more advances than declines in the list of the most active stocks published each day. Stocks, in general, advance about two-thirds of the time, and go down only about one-third of the time. (EN9: *Probably a truth over the long term, but in the modern context, ample short opportunities exist.*)

Furthermore, most of the news releases, rumors, and comments in the press related to stocks and corporate affairs have to do with the brighter side of industry. It is only natural that executives, public relations people, and the reporters themselves should be interested in forward-looking developments, new processes, expansion of facilities, increased earnings, and the like, and that such items should prove more newsworthy than less optimistic reports.

These various factors may explain why “the public” is always Bullish. The public is always hoping and expecting stocks to go up *all the time*. If stocks are rising and in a Bullish Phase, the public expects them to still go higher. If stocks have declined sharply, the public will argue they are now better buys than before and must surely go up soon. It is *up, up, UP*, always up, in the mind of the public.

Yet, examination of the long-term charts covering the action of the Averages over many years will show you that, through these long periods, the levels rise and fall about the same amount. This being the case, it must follow that stocks come down as far as they go up and because they go up about two-thirds of the time, they must come down much faster than they go up. This you will find is true. The angles of decline in the Averages and also in individual stocks are usually steeper in Bear Market Moves than the advances are in Bull Market Moves. A corollary to that is that profits *can be made faster on the downside* of the market than on the upside.

Such profits are made by *selling short*. It is important if you are a trader to understand the meaning of a short sale. When you sell a stock short, you borrow that stock from someone who owns it, and then you turn around and sell it to someone else, agreeing with the original owner to replace his shares at some unspecified time in the future. All of the details of this transaction is handled by your broker. Shares of most stocks of large outstanding issue are available for loan at all times in the hands of brokers, and your broker has access to them. The mechanics of this borrowing and sale are interesting; you may wish to get from your broker the whole story of how these operations are carried out. For all practical purposes, however, all you need to do is tell your broker what you wish to sell and leave the rest to him.

He will advise you if, by any chance, the stock you have selected for short sale is not available for loan. Another practical point, although of minor consequence, is that a slight additional tax is assessed against short sales. (EN: *In that gains on short sales are not eligible for long-term capital gains tax.*)

It is important also, if you are a trader, to accept opportunities to sell short as readily as you go long stock. Unfortunately, there are psychological barriers to short selling. There are, for example, the unintelligent and entirely irrelevant slogans about “selling America short.” There is the feeling on the part of many who are poorly informed that short selling is the somewhat unethical trick of the manipulator. Others have the impression that, in selling short, one is hoping to profit by the misfortunes of others at times of disaster and Panic. It is not the purpose of this book to persuade anyone to sell stocks short, any more

than it is our purpose to advise anyone who should not to speculate on the long side of the market. Nevertheless, so many questions are constantly raised, even by fairly sophisticated investors, about the ethics, as well as the practical procedure of short selling, that we may perhaps be pardoned for saying a few more words in its defense.

All of the popular ideas about short selling mentioned in the preceding paragraph may be branded as so much nonsense. There is nothing more reprehensible about selling short than buying long. Each is a speculation in relative values. The truth is money is a commodity, just as much as a share of stock. There is no moral or practical difference between borrowing money to buy stock because you believe the latter will go up in value in terms of the former and borrowing stock to “buy” money because you believe the latter is going to go up in value in terms of the former. In each case, you are obligated eventually to repay the loan whether it be money or stock. In each case, you are taking a risk on the basis of your considered forecast as to the future trend of *relative* values.

There are, in fact, many common business practices that are more or less analogous to selling stocks short. For example, every time the publisher of a magazine accepts cash in advance for a subscription, he is making something like a short sale. His ultimate profit or loss will depend on what the magazines he will eventually supply have cost him by the time the subscription runs out.

When you sell stocks short, you (or rather your broker) receive the proceeds of the sale at once but you are obligated to turn back an equal number of the same shares at some future date to the man from whom the stock certificates were borrowed. (*EN: One of the advantages or edges that professionals enjoy over private investors is the credit of short sales to their accounts and the payment of interest thereon. Although the proceeds are credited to the private investor, no interest is generally paid on it, unless the investor has influence with the broker. A favorable situation is created, however, if a short sale of \$100,000 were made on, say, 50% margin, a credit of \$150,000 would be made to his account, and no interest would be charged. Any dividends the trader paid on the transaction would be expensable.*) Consequently, sooner or later, you have to go into the market again and buy those shares. When you buy them, you (or rather your broker) return the shares to the original lender, thus discharging your obligation. If the cost of your purchase was less than the proceeds of the earlier sale, the difference is your profit. If it costs you more to buy in the shares—or as it is termed, cover your short—the difference represents a loss. You do not enter into a short-side transaction unless you expect the price of the stock to go down; hence, showing you a profit.

One of the little-appreciated results of a large volume of short selling is actually to strengthen the market. Every short seller is a potential buyer. Most short sellers are glad to cover and take their profits on a relatively Minor Decline. Consequently, if there is a big short interest at any given time in a particular issue, it means there are many people waiting to buy that stock when it goes down. This situation tends to “cushion” bad breaks. Some astute operators will actually buy a stock when they learn there is a very large short interest in it, meaning a great many shares of it have been sold short and not yet covered, because they realize competition among the short sellers to buy the stock whenever it has a small decline may result in a very fast and profitable Short-Covering Rally. Any stock is stronger, technically, if there is a good-size short interest in it.

There is one further objection raised against short selling. It will be pointed out when you buy stock that your loss, if worse comes to worst, can be no more than the total amount you paid for it. In the case of a short sale, the price of your stock could, theoretically, rise against you to \$50.00, \$100, \$1,000, \$10,000 a share; in other words, it could rise without limit. This argument sounds much more alarming than it really is. Certainly there is no occasion to lose sleep over it. Stocks do not go up without limit all of a sudden. It is just

as easy to set a stop on the loss you are willing to take on a short-side transaction as it is on a long purchase. Such situations as the famous 1901 corner in Northern Pacific are not likely ever to occur again under present regulations. (EN: *The famous “short squeeze.” Short squeezes still occur but are extremely rare in big liquid issues. A famous short squeeze occurred in the silver markets of the 1980s when the Hunt brothers trapped Exchange members and almost bankrupted them. The members, being in control, retaliated by quintupling margin requirements and bankrupted the Hunts.*) The authors realize nothing said, and probably no amount of cold-blooded analysis on the part of the reader himself, will remove entirely the trepidation that most nonprofessional traders experience when they sell short. The mental hazards will always be slightly greater than in buying long. Nevertheless, from every practical angle, a short sale is exactly the same thing (although in a reverse direction) as a long purchase, with no greater risk, with actually somewhat greater chance of quick profit, and differing only in details of execution.

A commitment in commodity futures contracts, whether long or short, although quite different in theory, has some similarities to a short sale of stock. In making a contract, no actual sale takes place, and no loan of either cash or the commodity is involved. Such a contract is simply a binding legal agreement to accept delivery or to deliver a certain commodity at a certain price at a certain time. In this respect, it is *different* from a short sale of stock. It is also different in that it must be closed out on or before a definite date. Although, the purchase or sale of a commodity contract is similar to a stock short sale in that (1) it is necessarily a margin transaction, and (2) it creates an “open” or incomplete transaction that eventually must be liquidated.

A short sale of stock must always and necessarily be a margin transaction. Thus, if you buy 100 shares of stock outright at 20, it can sink to 15 and you cannot be called for more margin. You have lost \$500, but the stock is still yours. If you sell, you get back \$1,500, disregarding commissions. On the other hand, if you sell a stock short at 20, putting up a margin of 100%, and the stock rises to 25, you will also have lost \$500. The broker, under certain conditions, such as the 100% margin requirements in effect at one time, might call on you for \$500 additional margin. Or, if the transaction were to be closed out at that point, you would receive back \$1,500 less commissions, the same as in the long transaction. In the case of this short sale, had the price dropped to 15, your profit would have been \$500.

On short-term moves, the effect of short selling is exactly the same as the buying of long stock, but in the opposite direction. You simply apply the same methods here in reverse, during a Bear Market, that you would use in a Bull Market. As we have already seen, the various technical indications that point to upward moves in a Bullish Phase have their counterparts in downside signals during a Bearish Phase.

Execution of short sales cannot be made at any time and at any price you wish. A short sale must be made in a rising market. You are not permitted to sell a stock short on the New York Stock Exchange during a market break when each regular sale is at a lower price than the one before it (EN9: *the uptick rule*). However, this need not bother you much because, ordinarily, you would make such a sale on the rally as it reached your price, and this would naturally fill the requirement of a rising market. Your broker can give you, in detail, the special rules and regulations that apply to short sales. It will pay for you to study these so you can place your orders correctly when the proper time comes to make such sales. (EN9: *At the AMEX, short sales on ETFs and some HOLDERS are exempt from the uptick rule as are futures contracts on the futures exchanges.* EN10: *In 2007, the uptick rule was removed in an ill-considered bow by the Securities and Exchange Commission to large speculative interests. The reader may judge for himself whether subsequent markets have been more volatile on the downside. It is our observation that the loss of this rule results in accelerating slides in fast*

downside markets. Since 2009, there has been wide debate about reinstatement of the uptick rule, so far to no avail.

In the current context, short selling has been institutionalized. The public may buy ETFs, which take the short side of almost any instrument, as, for instance, QID for the Qs is a short bet, as is DOG for the DIAMONDSTM (DIA). There are even leveraged [two times, three times] ETFs [long and short].)

chapter twenty-six

Round lots or odd lots?

(EN: Or, put another way, size?)

One of the minor tactical questions bound to plague you is whether to trade in round lots of 100 shares or odd lots (less than 100 shares in active stocks).

(EN: In Internet-age markets, this question has virtually lost its relevancy. In Magee's time, there was a distinct disadvantage to trading odd lots, and one traded odd lots only if hampered by limited capital. Now that an investor can achieve full diversification in an odd lot position by buying odd lots of Standard & Poor's Depositary Receipts (SPYs) and DIAMONDS™ (DIA), there seems little point in discussing it. There is, of course, always the question of broker commission—if the broker has a fixed commission rate, regardless of the size of the trade, then the small investor gets nicked. It would seem this follows the old adage that the rich get richer. Nevertheless, now the small investor can strike back by finding a broker who does not charge commissions. At first I thought commission-free brokers were making up their profit on volume; in fact, there are other ways to make a profit on trades than charging a commission—for example, directing the execution of the orders to a trader who needs “order flow.”)

In the Internet age, the question of what size a trade or investment should be is different from the question that confronted traders of, as it were, ancient times. Now, it is not so much a matter of cost disadvantage in trading odd lots as it is a much deeper question—that of risk and portfolio management. So how does the aware investor determine the size of any individual trade?

I am indebted to a longtime friend, colleague, broker, and fellow trader, William Scott, for articulating the common-sense procedure here for calculating trade size and controlling risk.

First, we determine the percentage of our capital we want to risk on any given trade. Among many professional traders of our acquaintance, this figure is often 2% or 3%. For the sake of illustration, using round numbers, if we have \$100,000 capital this means we will be risking \$3,000 on a trade. Let us say we are going to buy a \$20.00 stock and defend our position with a stop-loss order \$5.00 away. Our formula for computing position size is as follows:

$$3,000/5 = n \text{ number of shares (600 shares)}$$

If we were going to accept a \$10.00 risk, our trade size would be $3,000/10 = 300$ shares. Thus, we adjust our trade size to fit our risk parameters.

This is a simple, practical, and elegant way to implement risk control at the individual trade level.

Trade size is, without doubt, one of the most crucial factors in success for the general investor. Ignorance, or denial, of its importance is a major reason for the failure of many traders. In short, overtrading. Other perspectives on risk and trade size are found in [Chapter 42](#) and in Appendix B, where the Leverage Space Model is explained.)



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chapter twenty-seven

Stop orders

We are going to take up two kinds of stop orders, or, rather, two entirely different uses of the mechanism of stop orders.

First, let us look at the protective stop order. At best, it is not a happy subject. Stop orders of this type are like fire extinguishers; the occasions when they are put into operation are not times of rejoicing. Stop orders are used for emergency rescue when things get so bad there seems no reasonable hope for a situation.

Wherever you set your protective stop, it is likely to be touched off at what seems to be the worst possible moment. You will set it at a safe distance under a certain bottom; the stock will break through, catch your stop, and then proceed to build a new bottom at this level for the next rise, or to rally at once and make new highs. No matter, you had your reasons for setting the stop. The stock did not act the way it should have. The situation is not working out according to Hoyle and certainly not the way you hoped it would. Better to be out of it, even at a loss, rather than face a period of uncertainty and worry. If the stock has started to act badly, you cannot tell how much worse it is going to behave. If you fail to set a stop, you may go on day after day hoping for a rally that never comes while your stock sinks lower and lower until, eventually, you find (as millions have found) that what started to be a small reaction, and an annoying but trivial loss, has turned out to be a ruinous catastrophe. Stop orders cannot always be placed; in certain cases in active stocks, the exchanges may even restrict the use of stop orders.

The question is where and when to set the stop, realizing there is no perfect and absolutely satisfactory rule. If the stop is too close, you will take unnecessary losses; you will lose your holdings of stocks that eventually forge ahead and complete the profitable rise you hoped for. If stops are too wide (too far away), you will take larger losses than necessary in those cases in which your stock definitely has broken out of pattern.

Now, it will be obvious, as the setting of stop orders depends on the price of the stock and its habits. You would not place your stop level at the same percentage distance under a Bottom in a conservative, high-priced stock when it is selling at 80 that you would to protect a speculative issue at a time when it is selling at 8.

The higher priced stocks, as we have already seen, make smaller percentage moves. Conversely, the lower-priced stocks make wider percentage moves. Therefore, the lower-priced stocks should have more leeway for their gyrations. We will need a wider stop for them than we will for the less volatile "blue chips."

Similarly, we can take our Sensitivity Indexes (*EN: betas in considering a stock relative to the market, and volatilities for absolute measure of one stock against another*) to give us a picture of the individual habits of the stock. Although two stocks may be selling at the same price at a given moment, you would expect a high-beta, high-volatility stock to make wider swings than a low-beta, low-volatility stock; therefore, you will set your stops wider on the higher volatility stock.

We must take these factors into account and work out some sort of simple rule of thumb to follow. Let us arbitrarily assume an imaginary stock of "average" habits and a price of

25 and further assume we will be satisfied, in this particular case, with stop protection 5% below the last established Minor Bottom.

For a stock of the same sensitivity selling at 5, we would need about half again as much stop leeway (on a percentage basis). That is, the stop would be placed 7.5% below the last Bottom (EN9: *significant low*).

(EN10: *Here Magee gave an account of how, using his Sensitivity Index and his normal range for price, he computed stop positions. The process is too convoluted for modern investors—and unnecessary because Magee boiled the procedure down to a table I have modernized below. The Procedure is intact in the eighth and ninth editions for the scholarly (or obsessed) investor or academic.*)

For most ordinary purposes, a simplified table of stop distances will be sufficient. Table 27.1 gives you the approximate stop distance you would get by the method outlined above, for stocks in various price classifications and of various degrees of sensitivity (volatility).

(EN10: *Magee originally constructed this table based on his Sensitivity Index. The informed reader may consider an alternative to Magee's Sensitivity Index, which I have conjectured here for the modern context—that is, basing the stop distance on volatility, which would present a dynamic method of adjustment.*)

The stop level should be marked on your chart as a horizontal line as soon as an actual or theoretical transaction has been entered into, and it should be maintained until the transaction is closed, or until progressive stops (which we will explain in a moment) have been started to close it out. In the case of purchases, the stop level ordinarily will be at the indicated distance below the last previous Minor Bottom. In the case of short sales, it ordinarily would be at the indicated distance above the last Minor Top.

To determine the position of this stop level, simply figure what the percentage distance would amount to at the price of the stock. If you are dealing with a stock selling at 30 and the stop distance comes out 10%, then allow 3 points under your last Minor Bottom.

In no case would we ever set a protective stop level at less than a 5% interval, even for the most conservative, high-priced stocks.

These questions remain: What constitutes a Minor Bottom? What makes an established Minor Top? How do we know how to choose the *Basing Point* (EN9: see Chapter 28) from which to measure off our stop level interval? The constitution of a Bottom or a Top (EN10: *wave high, wave low*) will be taken up in the next chapter. For the present, let us accept the proposition we will determine the correct Basing Point and will always, always set our stop level at the moment we make the commitment.

Table 27.1 Table of stop distances (expressed in percent of the price of the stock)

	Conservative sensitivity	Median sensitivity	Speculative sensitivity
Price	Volatility under 0.40	Volatility 0.41–0.79	Volatility over 0.79
Over 100	5%	5%	5%
40–100	5%	5%	6%
20–40	5%	5%	8%
10–20	5%	6%	10%
5–10	5% ^a	7%	12%
Under 5	5% ^a	10%	15%

^a Ordinarily, stocks in these price ranges would not be in the conservative group.

It is understood protective stops under long stock are never moved down, nor are protective stops over shorts ever moved up. As soon as the stock has moved in the right direction far enough to establish a new Basing Point, the stop level is moved up (on longs) or down (on shorts), using the same rules for determining the new stop level as were used in fixing the original level.

The progressive stop

There is another use of a stop that is properly considered here. This is the progressive stop, which is used to close out a stock that has made a profitable move, or in some cases, where a stock has given a danger signal before either completing a profitable move or violating a previous Minor Bottom.

You will find on many moves, the stock will progress in the primary direction for several days and then may develop exceptional volume. Often, this occurs just as the stock reaches an important trendline or pattern border or Resistance Area. This heavy volume means one of two things: usually, that the Minor Move has come to an end, being this is the top of the rise for the moment; occasionally, the volume may signal the start of a breakaway move that may run up several (and perhaps many) points, almost vertically. (The reverse situation may develop on downside moves.)

If, noticing the heavy volume following a good rise, and assuming this day marks the end of the move, you sell the stock at the market or at a limit, you are going to be dreadfully disappointed if this should be one of those rare cases in which the stock opens the next day on an upside gap and continues 3, 5, or 20 points up in the following days. On the other hand, experience will have shown you it will not pay to expect that sort of move very often. You will know that, 9 times out of 10, you will be better off out of the stock.

After such a day when volume is exceptionally high (provided this is not the first day of breakout into new high ground beyond the last previous Minor Top), cancel your protective stop and set a stop order, for the day only, just $1/8$ (0.125) point under the closing price. For example, you have bought a stock at 21; it goes up on moderate volume, smashes through the old Minor Top one day at 23 on very heavy volume, the next day continues to $23\frac{3}{4}$ on moderate volume, the third day advances on moderate volume to $24\frac{1}{4}$, and, finally, the fourth day makes a rise to 25 on much heavier volume than it has shown on any day of the rise except the day it broke through 23. The morning after this close at 25, you will notice the volume signal. You will cancel your protective stop, which may be at 18, and you will place a stop order, for the day only, to sell on stop at $24\frac{7}{8}$. In most cases, this will mean your stock will be stopped out on the first sale of the day. Plus, you may get a slightly lower price than you would get with a straight market order. On the other hand, after a day of high volume activity, you are not likely to be left in a thin market; there should be bids enough, near the top, to get you out at or near your stop price.

Meanwhile, you are protected against losing the stock if there should be a continued move in the right direction. Suppose the opening the morning after you set your stop at $24\frac{7}{8}$ should be a gap at $25\frac{1}{4}$, and that prices then move up further, closing at 26. (On "runaway" moves of this sort, the closing for the day during the move is likely to be at the top.) You will then set your stop, again for a single day only, at $25\frac{7}{8}$. If the stock then opens at $26\frac{3}{8}$ and moves up to 28, you will set another day stop at $27\frac{7}{8}$, which, let us assume, is caught at the opening the following day at $27\frac{5}{8}$. In this example, you risked only $1/8$ point on the first day, and eventually netted an extra gain of $2\frac{5}{8}$ points. This, it should be pointed out, is all net gain because your commissions are approximately the same in either case.

A progressive stop of this sort can be indicated on the chart by any mark you choose to use—for example, a band of short diagonal lines. When a stock moves for several days in a runaway move, you may repeat this mark each day, indicating a tight stop $1/8$ point under the close for each successive day, until finally, one of these stops is caught. In the case of short sales, a buy stop is used in precisely the same way as the selling stop, by following the stock down on a sharp runaway dive.

This use of tight progressive stop orders is indicated wherever a stock has reached its reasonable objective on high volume, or where it has exceeded its objective and is moving out of the Trend Channel in free air, so to speak, and in some cases, where the stock has failed to reach its objective.

If your stock, for instance, is rising in a Trend Channel, and, about halfway between the lower and upper trendlines, suddenly develops great volume, then a progressive tight stop will protect you against the threatened failure of the move. Extreme volume in such a case, before there has been a breakout to a new high above the last Minor High, is definitely a warning and a threat. This would be especially true if there were also a gap or a One-Day Reversal at this point.

The one day on which a tight stop would not be applied after heavy volume had appeared would be the day the stock made a new high, running entirely through the previous Minor Top and closing above it. This action generally means the move is not yet completed. Should the move continue higher and again show heavy volume, even if it is the very next day, we would then protect with a progressive stop.

In this chapter, as throughout the book, the expression “heavy volume” means heavy only with respect to the recent volume of sale in the stock you are watching. A thousand shares may be significantly heavy volume in some thin issues, whereas 10,000 shares would be no more than a normal turnover in more actively traded stocks. The volume chart itself will show, by a market peak, when a day of abnormally heavy volume occurs.

It should be understood the progressive stops we have been discussing are intended to take short-term gains, or to close out an exceptionally profitable runaway move terminating in an Intermediate Climax. Although the extreme conditions that call for this type of operation are by no means rare, they are not the usual, everyday action of the market. In the case of ordinary Minor Tops, even when they are fairly apparent on the basis of Trend Channels, volume peak, and other indications, many traders and investors will prefer to wait out the expected reaction rather than pay additional commissions and lose a position that is still presumably in a favorable Major Trend.

In short, the progressive stop is a device that may be very useful on occasion, but it is intended to cope with a special and somewhat unusual move.

The protective stops, on the other hand, offer the average trader, the man who is not able to spend his entire time studying the market, or who has not had long experience, a device by which he can limit his possible loss. He will be protected from his own reluctance to close out the bad holding, and he will avoid the ruinous condition of becoming frozen into a hopeless situation. Since he will be taken out automatically, regardless of whether he has an ultimate gain or loss, he will have the capital to use in better-looking issues and will not have to worry about the prospects of recovery in his stock after it has gone many points against him.

If one has sufficient knowledge and sufficient determination to get out as soon as the trend has shown convincing evidence on a turn, there is less need for the stop orders. (EN: *This editor believes that only the proven trader-investor should trade without a stop in the market. The reader may determine whether he meets this criterion by examining his portfolio to see whether he has ever let a loss run or allowed a significant profit to slip away. If so he, or she, or they, or it, is*

not proven.) It is possible for such a person to operate successfully without them; and there are some advantages in doing this because a stop order will occasionally be caught by a false move or an extended dull reaction. There are also advantages in not using stop orders for the experienced technician who is looking toward a possible long-term gain and who is willing to wait out a Secondary Reaction. Yet it is a thousand times better for the person who is not sure of his methods to be stopped out early, than to be left holding a stock bought at, say 60, when it has declined to 29—or to 5!

Stop systems and methods

The two most important concepts in investing and trading are trends and stops. Being right, the trend immeasurably diminishes risk and increases our probability of profit. However, without skillful setting of stops, all our work and study can easily result in nothing as the markets dodge and weave, deceive, and throw off false signals. If our analysis has not resulted in skillful stop setting, we will be no better off than that unfortunate fellow who is acting on a tip from his brother-in-law—or his bootblack.

Consequently, let us first attack this question from the viewpoint of the trend-following investor and deal with trading stops thereafter. In Magee's systems for the trend follower, there are two basic stop methods. One is based on trendlines (sloped and horizontal), and the other is rooted in Basing Points. Chart patterns interact with these two methods. This entire book treats the former at length in too many chapters to mention here. The second, Basing Points, is discussed exhaustively in [Chapter 28](#).

The breaking of trendlines is always significant. Magee tested the validity of the break by requiring that prices penetrate the line by 2%–3%. This may not be perfect, but it serves for the majority of situations. The longer the trendline the more important the break, as illustrated in the market breaks of 2008 and 2011 (a trendline of more than 700 days). The downwaves (crashes?) resulting from these trendline breaks were recognized and commented on at the time at <http://www.edwards-magee.com>. [Figure 5.1](#) illustrates the serendipitous convergence of all three methods combining to exit longs and short the market in 2008. Trendline analysis, pattern analysis, and Basing Points analysis by their very nature are complementary and lead to similar conclusions, as, for example, in August 2011 when the long-term trendline from March 2009 was broken, a Head-and-Shoulders Top was identified, and the Basing Point stops were taken out.

Therefore, we have three ways of setting stops in extended trends—trendlines, patterns, and Basing Points. Are there other stop methods for trend following? Indeed. A multitude. A plethora. A cornucopia. An excess. First, let us remark on the crucial question of stop setting in trends.

Stops set too close to the market result in the trader losing his position. The stop must be set to give the market room to move against his position, thus (crocodile tears) apparently surrendering precious profits. As the market advances in waves (truism)—wave up, wave down—stops must be, as in the Basing Points Procedure, set sufficiently below wave-low points to avoid being exercised. In an interview in *Market Wizards*, Jack Schwager asked a major trader, Bruce Kovner, where he set his stops. "Where they're hard to get to," replied Kovner.

This is the principle at work in Basing Point stops. Knowing that locals and market mischief-makers probe for stops at wave lows and support zones, the stop is set with a filter, thus some distance below the wave low (or wave high). This stop is hard to access.

The same thing is true if using a moving average. Magee used a 2% or 3% stop for trendlines and a stop of this type is probably good for a moving average, too. At the same

time, if volatility and excitement are running high, the trader must adjust the size of his filter. In a rising market tracked with a moving average, the trailing stop would be moving every day the dotted line moved up. Naturally, with a filter that might be enlarged if market volatility became excessive.

A brief survey of stop methods

Here we are going to deal primarily in exit stops. (EN: *My book Signals [available on Amazon's Kindle platform] analyzes at length methods for entering trades and trends.*) Many traders use stops to enter positions, but that is not our interest at this moment. We want to know how to protect our initial entry and how to advance our stops so as to lock in our profits when the trade has gone our direction. The initial stop may be set as with Basing Points (as described in [Chapter 28](#)), or it may be set above or below a Support–Resistance zone, or as a percentage (William O'Neil says a stop should be set 8% below the entry), or even as a percentage of capital—for example, 2% risk per trade—a \$2,000 stop (\$100,000 capital) is a common money management system.

If the market moves against our trade, the protective stop limits the loss. If the market moves with us and begins to accumulate profits for us, we have a different, and happy, problem. It is only a matter of time until the market throws us a downwave to test our mettle—or to dislodge us altogether. We are trend followers, so we buy strength and sell weakness, but our antagonists are contrarians—they do the opposite. Thus, after a reasonable upwave, contrarians will be taking profits and driving prices down. Swing traders will be doing the same thing. We want to stick to the trend until it changes, even taking these “corrective” waves against our position. Basing Point stops will do this, and the inevitable result is fluctuation in equity. Long experience has shown that fleeing from downwaves and exiting invariably results in smaller long-range profits. Accepting downwaves and fluctuations in profit leads to greater long-range profits. Look at the tables of Dow and Basing Points performance. It is not unusual to see downwaves of 10%–30% without a change of trend occurring. We have seen how we can stop these trends with trend analysis and Basing Points analysis—and there are other philosophies and other methods.

Some other stop methods

Average True Range

Average True Range (ATR) is an interesting concept and tool. It is a measure of volatility, in actuality, and tracking it gives us some interesting information. True Range is defined as the largest of the following:

Today's high minus today's low.

Today's high minus yesterday's close.

Today's low minus yesterday's close.

ATR is the average of True Range over some defined period. Twenty days is a not uncommon parameter, as is 14. Five days is very sensitive, which has advantages and disadvantages.

ATR may be used to set stops. For example, we might set our initial protective stop 2 (or x) ATRs below our entry. We might set our trailing profit protection stop in the same way: x ATRs below the recent high—or the low of the recent high.

Stops set this close are typical of trading situations. There is at least one practitioner of my knowledge (Eric Crittenden, <http://www.blackstarfunds.com>) who judges if prices take out the stop 10 ATRs below the most recent high, the trend has changed. This is sometimes called a Chandelier Exit. This kind of concept can be examined using trendlines and reversal formations. ATR is a natural way of measuring market volatility and it rhythmically adjusts to market behavior. This makes a system more flexible than fixed percentages or fixed dollar amounts. An interesting paper on Crittenden's method is found at http://www.trendfollowing.com/whitepaper/Does_trendfollowing_work_on_stocks.pdf. Feature this, relevant to my point, that the market must be given room to work: Crittenden found that a 10-ATR filter averaged a space of 27%. So what we have here is an inherent stop system that posits a 27% reversal to indicate a change of trend.

Parabolic stop and reverse

Welles Wilder's (1978) parabolic stop and reverse (SAR) technique uses an "acceleration factor." Consequently, the stop rises parabolically, which has its strengths and weaknesses as the reader can imagine. Chuck LeBeau has conjectured a Modified Parabolic Exit, which tweaks the acceleration factor at <http://lcchong.files.wordpress.com/2011/05/precise-exits-entries-manual.pdf>. This presentation includes other interesting comments on stop methods.

Target stops

I am not a great proponent of target stops, but many traders analyze a formation or market situation and compute a possible target and exit the market when their target is reached. Other target criteria may be used—a dollar or point amount, or as in Bill Scott's method, five days down causes liquidation of half the position, six days the other half.

Similar to the target method, the trailing stop is raised when $x\%$ of profits are achieved and raised again as prices advance. An old Japanese saying has it as follows: "Sell half at 8 new prices, half again at 10 new prices, and the rest at 12 new prices."

Of a similar nature, some traders will close the trade when an extreme move occurs in their direction.

A natural method used by the Turtles

The Turtles used the breakdown from a 10-day channel to exit their long trades. This can be modified to as little as three days, in which case the trader would set a very tight stop based on the three-day low if a market were running away. Such a situation might also be managed with Magee's tight progressive stops—raising the stop each day to just under the low of the day to be in effect for the next day.

In the end, as the reader can see, there are as many stop methods as there are traders. For our purposes, the more natural and less algorithmic the method, the better—so it comes back down to trendlines, formations, and Basing Points, which can be tweaked to the individual taste.

If there is a truism about the markets it is this: a trader without stops will soon be a trader without capital.



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chapter twenty-eight

What is a Bottom and what is a Top?

(EN9: In this extremely important chapter, I have left intact Magee's usage of "Tops and Bottoms." It will be less potentially confusing for the reader to think of "highs and lows" as that terminology is commonly used in the business in the modern era. Also, thinking in terms of highs and lows is an important concept in itself. Thus, for a Bull trend, higher highs, higher lows. When this pattern is broken in an important way, the trader should be alert for a trend change. Also, as the use of eighths is of the essence in [Figure 28.1](#), I have left the discussion in eighths, although the reader knows decimals are now used in the markets.)

In this chapter, we are not talking about what makes a *Major* Top or Bottom or what makes an *Intermediate* Top or Bottom. We are speaking of the *Minor* Tops and Bottoms that give us important hooks on which to hang our technical operations. Stop-order levels, trendlines, objectives, and Supports and Resistances are determined by these *Minor* Tops and Bottoms. They are of prime importance to us as traders. (For illustrations in this chapter, see [Figures 28.1](#) through [28.4](#).)

Usually, these *Minor* Tops and Bottoms are well marked and perfectly clear, though often they are not. Sometimes, it is not possible to say definitely that this or that place is or is not a Top or Bottom, but it is possible to set certain standards and practical working rules that will help us in making these points, and these rules will not fail us too often.

A good rule for setting stop levels is to consider a Bottom has been made when the stock has moved "three days away" from the day marking the suspected low of the Bottom. If a stock reacts for some days and finally makes a low at 24, with a high for that day at 25, then we will not have an established Bottom until we have had *three days* in which the stock sells at no lower than 25 1/8. The entire price range for three full days must be entirely above the top price for the day making the low. This is the three-days-away rule, and it would apply in reverse in declining markets, in which the range for three days must be entirely below the entire range of the day making the high.

This gives a rule for setting an original stop order. It also gives a rule for changing the stop order. As soon as the stock has moved three days away from a new Bottom, we move the stop order to a position below that Bottom. (We have already explained in [Chapter 27](#) how we determine the distance this stop level should be below the Bottom.)

Protective stops for *long* stocks can move only up. A stop level, once established, is never to be moved down except when the stock goes ex-dividend or ex-rights; then, the stop may be dropped the amount of the dividend or rights. Similarly, protective stops for short sales are to be moved only down and may not be raised. (In the case of ex-dividends and ex-rights, the short-sale stop would be dropped the amount of the dividend or rights.)

There are certain situations in which it is difficult to determine Bottoms and Tops; where, indeed, it seems as though a Consolidation or Correction had been made without any significant move in the Secondary Direction. In such cases (as contrasted to the obvious situation in which the stock moves up or down in series of well-marked steps and reactions, like a staircase), you will need all your judgment and experience to determine the point at which the *Minor* Basing Points actually occur.

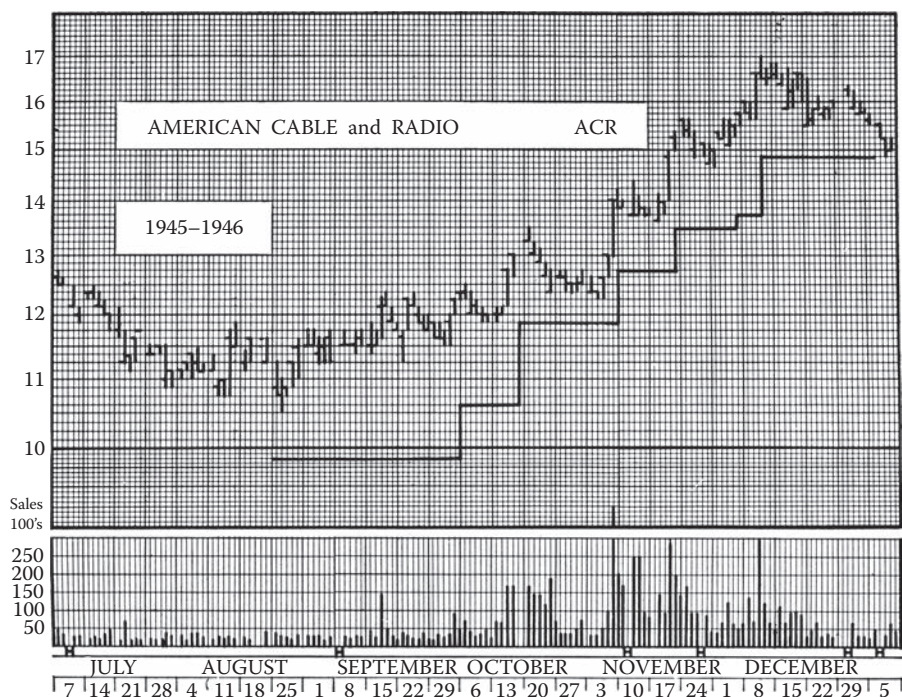


Figure 28.1 Advance of a protective stop order in a long commitment. The daily chart of American Cable and Radio in the summer of 1945 made a Rounded Bottom, part of a long period of Consolidation following the advance that ended in July 1944. A breakout on heavy volume occurred September 12, and purchases were then possible on any Minor Reactions.

The first protective stop would immediately be placed 6% below the previous Minor Bottom of August 21, using Table 27.1 in Chapter 27. This would put the stop level at $9 \frac{7}{8}$. On September 19 and 20, we would have two days of market action entirely “away” from the September 17 Minor Bottom, and, on September 28, a third day. We would then move the stop up to 6% under the September 17 Bottom, or to $10 \frac{5}{8}$. The next move would come after the new high closing of October 11, which is more than 3% higher than the October 1 Minor Peak. The stop would now be placed at $11 \frac{7}{8}$. On November 2, a new high close was registered more than 3% over the October 15 Minor Peak; the stop would be raised to $12 \frac{3}{4}$. On November 15, another high closing topped by more than 3% the Minor Peak made on November 7. The stop would be moved up again, this time to $13 \frac{1}{2}$. November 29 made the third day the entire range was “three days away” from the November 26 Bottom, and the stop was upped to $13 \frac{3}{4}$. The closing on December 5 gave us a 3% advance over the November 17 high, and again we moved the stop, raising it to $14 \frac{7}{8}$. Finally, on January 3, 1946, this stop was caught as shown on the chart. In a Bear Market, protective stops would be moved down in exactly the same manner to protect a short sale. (EN9: A number of inconsistencies exist in this figure and caption that are clarified later in the text.)

Basing Points

Let us call the levels that determine where stops should be placed *Basing Points*. In a Bull Market Move, we will consider the Bottom of each Minor Reaction as a Basing Point, from

which we will figure our stop-order level as soon as the stock has moved up to “three days away.” We will also use each Minor Top as a Basing Point in a Bull Move. In a Bear Market, we will consider the Tops of each rally and also each Minor Bottom as Basing Points for the protective stops in the same way.

Where a stock makes a substantial move in the Primary Direction, say a move of 15% or more, and then moves back at least 40% of the distance covered from the previous Basing Point to the end of the Primary Move, that surely gives us a Basing Point as soon as the stock again starts off in the Primary Direction. If the stock reacts less than 40%, however, perhaps even marks time at the same level for a week or more, that should also be considered a Basing Point as soon as the move in the Primary Direction is continued (provided the volume indications are right).

The daily volume, as we have seen, is like the trained nurse’s clinical thermometer; it tells a great deal about what is happening in a stock, more than the superficial symptoms of price alone. There are three times at which you may look for exceptionally heavy volume: (1) on the day of breakout from a pattern or a period of inaction, especially if the breakout is on the upside; (2) on the day on which the stock goes into new ground in the Primary or Intermediate Direction, that is, goes above the last Minor Top in a Bull Market or below the last Minor Bottom in a Bear Market; and (3) on the day on which the Minor Move is completed or nearly completed, that is, the new Minor Top in a Bull Market and the Minor Bottom in a Bear Market. To this we might add that extra heavy volume on any *other* day during a move in the Primary Direction is likely to indicate the move is at an end and will not complete the hoped-for advance or decline.

Now, after a Minor Top has occurred, the stock now being in new high ground, and the Top having been made on very heavy volume, we may look for the corrective move. Ordinarily, that would be a decline of several days, a week, sometimes longer. Occasionally, the correction, as we said a few paragraphs back, will take the form of a horizontal hesitation lasting a week or more without any particular corrective move in the downward direction. Where there is a downward correction, it is likely to come down to or near the Top of the last previous Minor High (support). Also, and often at the same time, the corrective move will carry down to the Basic Trendline drawn through two or more previous Minor Bottoms; or to the “parallel”; or to a trendline drawn through the last two or more previous Minor Tops. If the corrective move is horizontal, it is likely to run out until it meets one of these lines.

In any case, the thing to watch for is the decline of volume. If the trading shrinks, perhaps irregularly, but on the whole, steadily, for some days after a new Top has been made, during which time the stock either reacts or, at any rate, makes no progress in the Primary Direction, then you are justified in considering this as a Minor Correction. If the stock now continues the Primary Move and gets to a point that is “three days away,” you can consider the Bottom (i.e., the point you draw your trendline through, not necessarily the extreme low point in the case of horizontal moves) as a new Basing Point.

Where a stock is starting what appears to be a new move or a breakout from a period of vacillating moves, it is sometimes hard to say precisely what point should be considered the Bottom. There may be several small and indecisive moves on low volume preceding the real breakout. In such a case, we would consider the appearance of high volume as the breakout signal and set our Basing Point at the low point immediately preceding this signal. There usually will be such a point on one of the low-volume days in the three or four days just before the breakout.

All that has been said about Basing Points in a Bull Market would also be true, in reverse, in a Bear Market, except that heavy volume does not always accompany a downside breakout.

Now comes the difficult and distressing situation in which the stock, having made a long runaway move (let us assume it is an upward move), starts out to make a Flag; is bought after a sufficient correction of 40% with a decline of volume; and then continues to go down steadily, without any rallies and without any clear volume indications. This is an unusual situation, but it does happen on both the upside and the downside, from time to time. In the case we have just mentioned, we would look for Support Levels (Consolidation Patterns, Multiple Tops, and so on) formed on the way *down* in the previous trend and lying below the level at which we purchased the stock. We would use these supports as Basing Points rather than hold a stop under the extreme Bottom of the vertical move.

In many cases of this type, you will not be able to find adequate Basing Points. Therefore, it seems unwise to try to get in on corrections after long runaway moves except in the following cases: (1) the stock has risen well above good Support that can serve as a Basing Point, or (2) the stock is completely above all prices for several years and is moving “in the clear.” (And the reverse: in Bear Markets, the stock should have fallen below a strong Resistance Area or must be in new low ground for the past several months before you consider a short sale.) In any case of this sort in which you are thinking of a trade in a stock that appears to be making a Consolidation after a fast, long, vertical move, you *must* have pronounced and conspicuous drying up of volume throughout the formation of the Flag or Pennant Correction.

There is one more word of caution needed here regarding trading in an Intermediate Trend. A series of moves in a trend will often take place in very regular form. There may be a good trendline, and the reactions may be about 40%–50% and may come back to the previous Minor Tops. The volume on the Corrections may shrink with increasing volume on the new Tops. It is easy to start trading on such a “staircase” in the expectation the moves will continue to be regular and consistent, but trends do not go on forever. Any Minor Top may be the last. The importance of finding your Basing Points is to enable you to get out, at best, on any closing violation of one of these points, and at worst, on your protective stop order. The volume may again come to your aid in this question of when to stop trading on a trend. Although you look for high volume on the Tops, you will be exceedingly suspicious of volume that is *much* higher than on any of the preceding Minor Tops (or Bottoms in a Bear Market). The final, or the next-to-final, “blow-off” of a trend usually will show more volume than any of the Minor blow-offs along the way. When you see such climactic volume, you should prepare to retire into your shell and wait for a full Correction of the entire series of moves making up your Intermediate Trend. Later, weeks later, or perhaps months later, you may find the stock has corrected 40% or more of the whole Intermediate Move and is resting quietly with very little activity. Then is the time to watch it for new opportunities and a new trend in the Primary Direction.

(EN9: In a book composed of nothing but important chapters, this [Chapter 28](#) might not get the emphasis it deserves from the unwary reader. In fact, the procedure outlined here is of absolutely basic importance in analyzing and trading trends. I have added to this chapter material that has been of great importance to my trading and to the trading of my students.)

Basing Points: a case analyzed

The longer one thinks about the chart so casually tossed off in [Figure 28.1](#), the more he realizes it embodies a profound and natural understanding of trends and the market. Consider—wave up, wave recedes, wave up, wave recedes, and so on. As long as the trader or investor is not chased from his position by the corrective wave, he will, under normal circumstances, ride the trend to its natural end. Nevertheless, locals and hedge funds and those who profit from volatility know the previous low is where investors and traders set

their stops. So in the ordinary flow of trading, if they see an opportunity to take out an important low, they will do it—if possible. Indeed, it is sometimes possible and the low sometimes falls from the natural flow of trading.

Bruce Kovner, on being interviewed by Jack Schwager (*Market Wizards*), was asked where he set his stops. “Where they’re hard to get to,” he said. A twice told tale for its importance a stop set on a Basing Point with a prudently calculated filter is hard to get to unless the market has truly reversed direction. In fact, what is a long-term moving average but a lagging stop with a filter built in?

Basing Points are merely the marking of highs and lows in full realization that a pattern of higher highs and higher lows is a Bull trend, and when that pattern changes to one of lower highs and lower lows the trend is changing or has changed. This is the principle behind Dow Theory, and it is the principle behind trading trends of lesser duration than Dow trends. Moreover, as is quickly realized, a pattern of lower highs and lower lows means inevitably *the trendline has been broken*.

As for [Figure 28.1](#), Mark Twain had some cogent comments on it. He said anyone trying to make sense of it would go crazy, and anyone trying to justify the prices with the chart would be shot. [Figure 28.1](#) preserves unexplainable conundrums and conflicts carefully preserved since the earliest editions. The reader is urged to take it as a concept rather than using it as a lesson (See [Figure 28.2](#)). Let me codify the rules implicitly presented in the figure:

- A high is made, being recognized by no higher prices occurring for the moment.
- Prices recede and a low is made. This low is found by watching each day after the previous high until no lower prices are made. As prices begin to rise again, we note each day on which prices are completely outside the range of our low day candidate.
- When three such days are observed (three days away) before a new low is made, we mark the candidate day as a Basing Point and raise our stop to 6% (or $x\%$) under the low of the Basing Point day (see [Chapter 27](#)).
- If a new high is 3% greater than the previous high, a new Basing Point is found at the low of the new high day.

The Basing Points paradigm

By no means will every issue be amenable to this kind of analysis. However, the method is so paradigmatic, it is worth examining at greater length. Similar to virtually every other method of classical chart analysis, it must be used with caution and good, thoughtful judgment. Sometimes some stocks will seem to work as smooth as silicon lubricant, while other issues will appear to be useless. Even on recalcitrant issues, however, the principles underlying the method will be of use, if not the actual method itself. With this in mind, [Figure 28.2](#) is presented; the careful reader will see the chart in this example uses only bottoms or lows in stop setting and does not advance stops on the making of new highs as in [Figure 28.1](#). This is done for instructional purposes and to keep the example simple for the general investor. More advanced traders will want to study and perhaps utilize the new high techniques in [Figure 28.1](#).

[Figure 28.2](#) actually serves more than one instructional purpose. It illustrates a picture-perfect case of the use of Basing Points, as well as a complete analysis of a Bull Market from entry to exit with keys marking events in the life of the market. Thus, the observation of Basing Points, the setting of the stops, the tracking of potentially false turns are all noted. The chart is accompanied by the keys. Originally the marked and keyed chart was used in graduate seminars at Golden Gate University for instructional purposes. Shortly, it became

obvious that marking the chart in this manner was extremely useful in trading. Thus, it is suggested to the reader as a way of making his charts more communicative and more useful.

Key to *Figure 28.2* analysis

1. A rounding bottom, or perhaps a scallop.
2. Resistance or breakout line.
3. Wake-up call on volume.
4. Run day, big volume. Breakout through line 2. Sure entry signal.
5. First Basing Point (BP). Notice prior volume fall-off in consolidation and surge on run day. A stop was entered before this BP using the low of the formation before the entry.
6. BP.
7. A weak BP (because of shallowness of retracement).
8. BP.
9. Test of BP at 8.
10. A trendline drawn after point 9.
11. BP.
12. BP candidate that fails the three-day-away rule.
13. BP.
14. A potential BP, but not a very good one because a new high has not been made from 13.
15. A Support-Resistance line.
16. A test of 16 BP.
17. BP.
18. A Resistance-Support line.

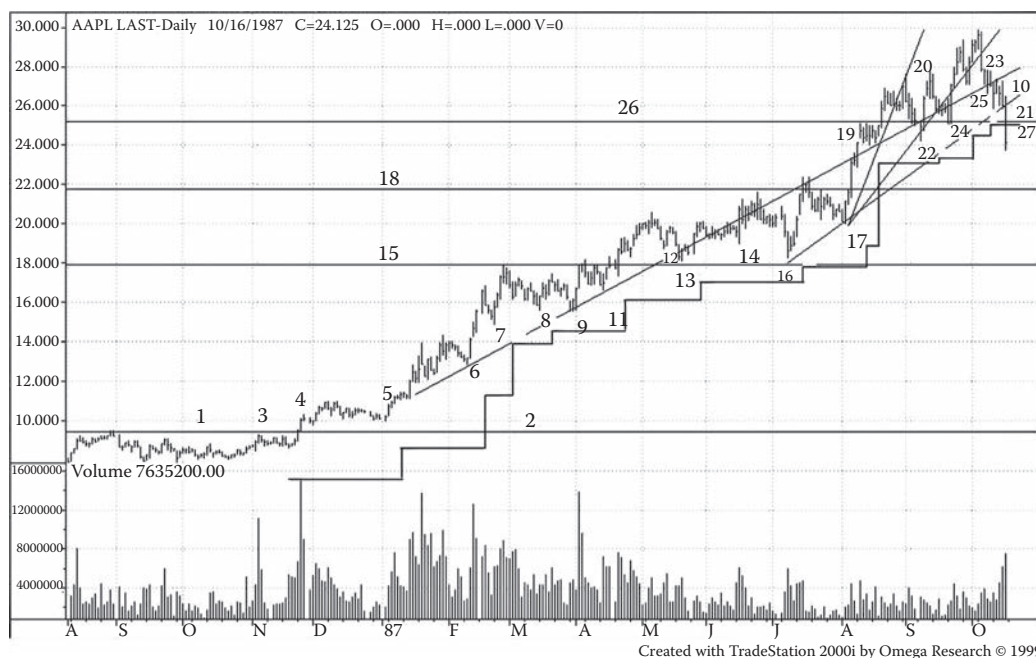


Figure 28.2 Apple Computer, Bull Market of 1987. A near-perfect example of the use of Basing Points for trading of a reasonably regular and smooth Bull Market. Only wave-low Basing Points are illustrated.

19. Flag that becomes BP.
20. Trendline, but too steep to last.
21. Trendline.
22. BP.
23. Trendline.
24. BP.
25. BP.
26. Horizontal trendline.
27. BP at 26.75 (stop 25.41). Stopped out at 25.41.

A narrative of the events in the chart

- 1–3. Had we been asleep, the event at number 3 should have awakened us; a volume day like this should catch our attention. We begin paying attention to the stock and note the pattern that has been developing—the rounding bottom, or scallop.
4. At number 4 we see a run day on heavy volume. A good signal for entry with the breaking of the horizontal line at number 2. When we enter, we set our stop 5% under the recent low. After entering on strength, there is every possibility that some profit-taking will occur as well as probing by locals to chase out arrivistes.
5. We watch with interest for the first reaction. Each day we observe as a candidate for a possible Basing Point. This occurs at 5, and we now begin to count “days away” from the Basing Point—days whose range is entirely outside the range of the candidate day and occur before a lower low is made. When the Basing Point at 5 is confirmed, we raise our stop to 5% under the low of 5.
6. A higher high is made after 5 with a subsequent reaction to 6, which proves to be another Basing Point. Therefore, we raise our stop to 5% under 6.
7. Prices continue to climb and another Basing Point is made at 7. The procedure is becoming clear: find a Basing Point and establish a stop a prudent distance under it. If a new Basing Point is made, raise the stop. Watch with interest the reactions against the trend. Either they allow you to establish a new higher Basing Point, or they end your trade.
- 8–10. We find a new Basing Point at 9, raise our stop and draw the trendline at 10. At 9 we have a lower low than 8, but our “filter,” our 5% padding, keeps our position intact. We do not lower our stops using 9 as a new Basing Point. One of the inviolable rules is stops are never lowered. The filter is important because traders try to take out nearby lows and exacerbate volatility. It is called the running of the sheep.
11. At 11 we find a new, if tenuous, Basing Point. An advance with a thin higher high.
12. At 12 we have a candidate for a Basing Point that fails the three-day-away rule.
13. At 13 we find the Basing Point that is good and raise our stop.
14. At 14 we are confronted with a marginal situation. It is a potential Basing Point, but a marginal one because a higher high was not made after 13.
15. At 15 we are able to draw a line defining resistance—a line that will become a support line.
16. At 16 we have a new Basing Point that would have tested a point at 14.
- 17–21. At 17 we find a new Basing Point, and at 18, we can identify a resistance line. The spurt across this line is both gratifying and a warning because it becomes a flagpole from which the flag at 19 flies. Flags and flagpoles are messages the market has heated up and now wants close watching. A flag can serve as a Basing Point, so we move our stop again, fully aware the end may be approaching. The trendline at 20

- is further confirmation of this environment because of its steepness, but we see two good anchor points in 16 and 17 and draw trendline 21—a better line to defend.
- 22, 23. A good reaction finally occurs at 22, giving a strong Basing Point and good rationale for raising the stop. Notice the interesting fact that points 22 and 24 have come back to rest on the trendline we drew at 10.
24. As the tempo has increased and the volatility 24 furnishes us another valid Basing Point.
- 25, 26. Even 25 is a valid point, and we can now see the clear support line at 26.
27. When this line is pierced at 27 upon extraordinary volume, and in the process takes out our Basing Point stop from 25, it is clearly time to exit the train. The Basing Points concept is even more thoroughly explored in the book entitled, *StairStops*, which is available on the John Magee Technical Analysis website at <http://www.edwards-magee.com> and on <http://www.amazon.com>, including Kindle edition.

The complete Basing Points Procedure: taking into consideration the setting of Basing Points on both wave lows and new highs

As previously discussed by Magee, the Basing Points Procedure may set Basing Points on both wave lows and on new highs. We find the wave-low Basing Point by the three-days-away rule; we find the new high Basing Point, by marking wave highs and subsequent new highs so when price exceeds by 3% the old wave high, or recent high, whether or not an intervening wave low has occurred, we may set the new Basing Point at the low of the new high day. If a new high were made subsequent to this new high, we would reset the Basing Point again if we were using this variant of the procedure, which I call Variant 2.

Once again, the one-armed economist rules. On the one hand, raising the stops like this on new highs may easily result in being ejected from the position by a price dip; then you watch the train leaving the station on the way to incredible new highs amid much teeth gnashing and irritation. (Incidentally, if emotional distress occurs in this or other like situations it is a message to you are too emotionally attached to the market. Complete market maturity is not achieved until such situations can be viewed with relative equanimity so the event is viewed with detached interest and a plan to set things right.)

On the other hand, after having accumulated large paper profits, the issue collapses and snatches back from you a third (or more) of your hard-earned profits. (If you had only advanced stops based on new highs!) Remember, the problem with Dow Theory (and trend following) is you give up the first third of the move and the last third of the move and sometimes there is not a middle third, as conventional market wisdom has it.

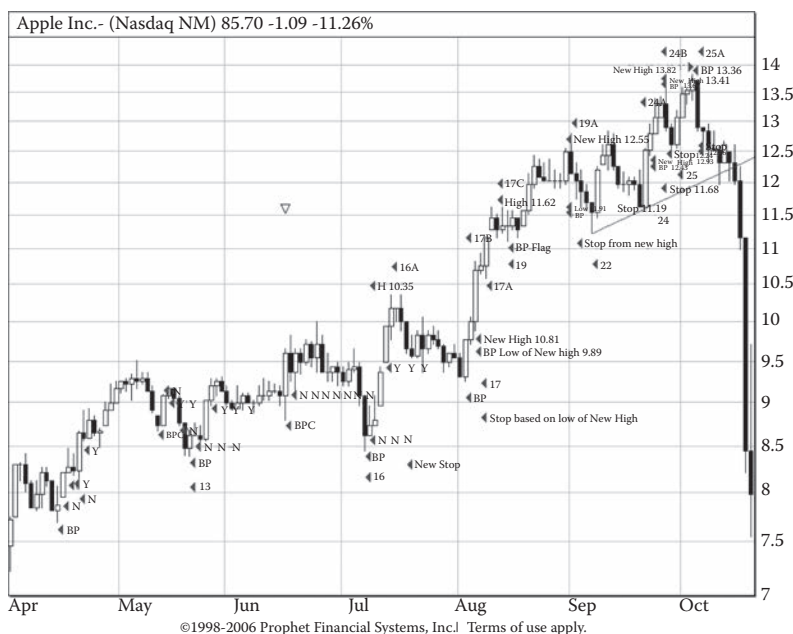
What essentially occurs when using Variant 2 of the procedure is as follows: when blow-off or runaway conditions occur, the procedure changes from selling weakness to selling strength. I believe very strongly in the variation of tactics, generally. Also, I am intimately familiar with the pitfalls of varying tactics, but I like the procedure in general and also think knowing when to use it and when not to use it can require a great deal of experience and emotional coolness in potentially high-stress conditions. If the entire (Variant 2) procedure is executed and also combined with a scale-in/scale-out plan, the user may succeed in shooting the moon.

The phlegmatic Marc Antony (who sleeps well of night and is sleek and well fed) follows the conservative wave-low method (Variant 1) and probably wins in the long run. The Variant 1 procedure is simpler and naturally expands to accommodate the high-volatility market that ejects the trader attempting to escape the inevitable collapse before going on to new completely unexpected heights.

As it goes, damned if you do, damned if you don't, unless you are charmed or kissed by the market fairy—or lucky.

The complete Basing Points procedure

1. A wave high is made, recognized by no higher prices coming for the moment. If this high is 3% (Magee's number, but could be a parameter) higher than the previous wave high (or the recent high in a run or blow off), the Basing Point is raised to the low of the new high day. Obviously, this comes into effect for the next trading day.
2. Prices recede and a low is made. This low is found by watching each day after the previous high until no lower prices are made (a potential wave low or Basing Points candidate). As prices begin to rise again, we note each day on which prices are completely out of the range of (away from) our low-day candidate, or a "day away."
3. When three such days are observed (the three-days-away rule) before a new low is made, we mark the candidate day as a Basing Point and raise our stop to 6% (or $x\%$ as this is a parameter) under the low of the Basing Point day. Obviously, the new stop is established the day after the three days away have occurred.
4. If a new high is made without an intervening wave low Basing Point, the process starts over from the new high.
5. If the new high is 3% (or $x\%$) higher than the previous high (whether made from a wave low or wave high), or from surging prices continually making new highs, a new Basing Point is found at the low of the new high day. Thus, a price move that went from 10 to 10.3 to 10.61 to 10.93 would create new Basing Points at the low of each new high day.



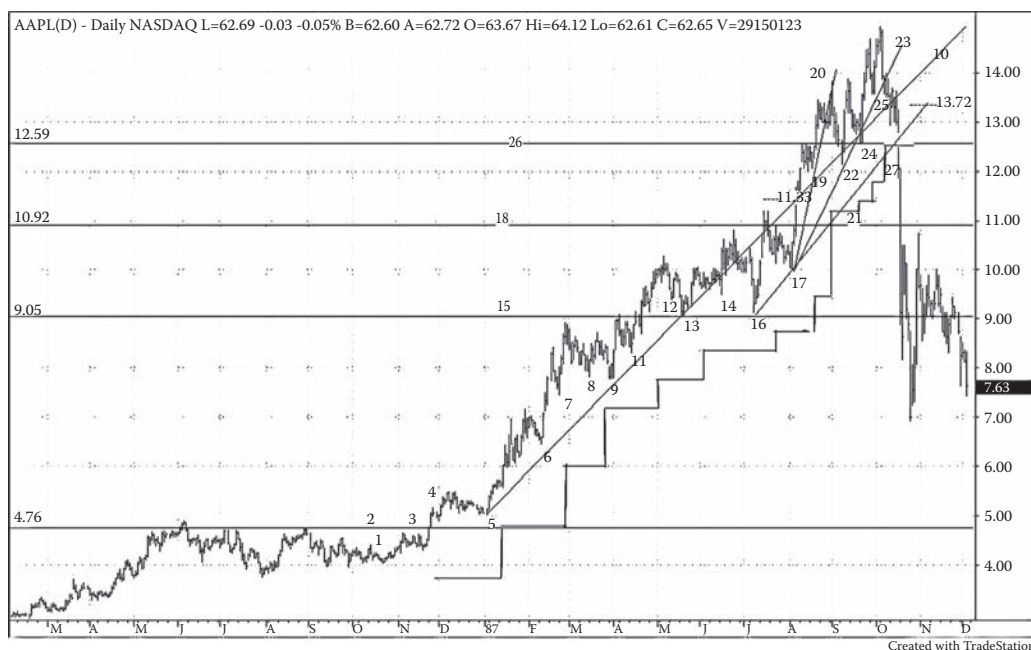


Figure 28.4 Apple Variant 2 of the Basing Points Procedure. This chart shows the trend from beginning to end as in [Figure 28.2](#), with the addition of dotted lines to show where stops fell when computed from higher highs. The previous candlestick chart is used for the close-up analysis. This chart puts into broad perspective the relative level of stops using the Variant 2 method. As can be seen, setting stops from new higher highs results in stops closer to the market prices. This can be good or bad, depending on what the market does to you.

Two charts giving a long-view perspective on the complete (Variant 2) procedure

There is another method Magee advocated for surging and blow-off markets. He called this alternative method “progressive stops,” which is explained in the ninth edition. Strictly speaking, although there is a variation in tactics involved in using new highs for stop calculation, this method is a twist on selling on strength. Variant 2 is still lagging stops behind prices. A pure strength selling method would attempt to time exit on a blow-off day, or a key reversal day or a one-day reversal, or even on a strong long running day up. This is perhaps a little easier to visualize on the downside. A panic selling day (which tends to finish at the lows) would provoke an exit on the close.

The representative case fully analyzed using wave lows and new highs

The case will not be unfamiliar to readers, and its use will fully highlight the differences found in the procedure. *The same materials will be used, and the differences will be boldfaced in the text.*

1. A rounding bottom, or perhaps a scallop.
2. Resistance or breakout line.

3. Wake-up call on volume.
4. Run day, big volume; breakout through line 2; sure entry signal.
5. First Basing Point (BP). Notice prior volume fall-off in consolidation, and surge on run day.
6. BP.
7. A weak BP (because of shallow retracement).
8. BP.
9. Test of BP at 8.
10. A trendline drawn after point 9.
11. BP.
12. BP candidate that fails the three-day-away rule.
13. BP.
14. A potential BP but not a very good one because new high has not been made from 13.
15. A Support-Resistance line.
16. BP.
- 16A. **New High: 10.35.**
17. BP.
- 17A. **New Higher High 10.81; Low BP 9.89 (+3% 11.13); Stop 9.30.**
- 17B. **New Higher High 11.16; Low BP 10.58 (+3% 11.49); Stop 10.49.**
- 17C. **New Higher High 11.62; Low BP 11.22 (+3% 11.96); Stop 10.55.**
18. A Resistance-Support line.
19. Flag that becomes BP. High 11.62.
- 19A. **New Higher High 12.55; Low BP 11.91 (+3% 12.93); Stop 11.19.**
20. Trendline, but too steep to last.
21. Trendline.
22. BP.
23. Trendline.
24. BP.
- 24A. **New Higher High 12.93; Low BP 12.43 (+3% 13.34); Stop 11.68.**
- 24B. **New Higher High 13.41; Low BP 13.07 (+3% 13.81); Stop 12.29.**
25. BP.
- 25A. **New Higher High 13.82; Low BP 13.36 (+3% 14.23); Stop 12.56.**
- 25B. Stopped out at 12.56.
26. Horizontal trendline.
27. BP at 25 (stop 11.80); Stopped out at 11.80.

A narrative of the events in the chart

- 1–3. Had we been asleep, the event at number 3 should have awakened us; a volume day like this (Cf. chart 28.2) should catch the attention. We begin paying attention to the stock and note the pattern that has been developing—the rounding bottom, or scallop.
4. At number 4 we see a run day on heavy volume. A good signal for entry with the breaking of the horizontal line at 2. When we enter, we set our stop 6% under the recent low. After entering on strength, there is every possibility that some profit-taking will occur as well as probing by locals to chase out arrivistes.
5. We watch with interest for the first reaction. Each day we observe as a candidate for a possible Basing Point. This occurs at 5 and we now begin to count “days away” from the Basing Point, that is, days whose range is entirely outside the range of the

- candidate day, and that occur before a lower low is made. When the Basing Point at 5 is confirmed, we raise our stop to 6% under 5.
6. A higher high is made after 5 with a subsequent reaction to 6, which proves to be another Basing Point, so we raise our stop to 6% under 6.
 7. Prices continue to climb and another Basing Point is made at 7. The procedure is becoming clear: find a Basing Point and establish a stop a prudent distance under it. If a new Basing Point is made, raise the stop. Watch with interest the reactions against the trend. Either they allow you to establish a new higher Basing Point, or they end your trade.
 - 8–10. We find a new Basing Point at 8, raise our stop, and draw the trendline at 10. At 9 we have a lower low than 8, but our “filter,” our 6% padding, keeps our position intact. We do not lower our stops using 9 as a new Basing Point. One of the inviolable rules is that stops are never lowered. The filter is important, because traders try to take out nearby lows and exacerbate volatility. It is called the running of the lambs.
 11. At 11 we find a new, if tenuous, Basing Point. An advance with a thin higher high.
 12. At 12 we have a candidate for a Basing Point that fails the three-day-away rule.
 13. At 13 we find the Basing Point that is good and raise our stop.
 14. At 14 we are confronted with a marginal situation. It is potential Basing Point, but a marginal one because a higher high was not made after 13.
 15. At 15 we are able to draw a line defining resistance—a line that will become a support line.
 16. At 16 we get a Basing Point.
 - 16A. **New High: 10.35 (a benchmark).**
 17. At 17 we find a new Basing Point and at 18 we can identify a resistance line. The spurt across this line is both gratifying and a warning because it becomes a flagpole from which the flag at 19 flies. Flags and flagpoles are messages that the market has heated up and now wants close watching. A flag can serve as a Basing Point, so we move our stop again, fully aware the end may be approaching. The trendline at 20 is further confirmation of this environment due to its steepness. However, we see two good trendline anchor points in 16 and 17 and draw trendline 21—a better line to defend.
 - 17A. **New Higher High 10.81; Low BP 9.89 (+3% 11.13).**
 - 17B. **New Higher High 11.16; Low BP 10.58 (+3% 11.49).**
 - 17C. **New Higher High 11.62; Low BP 11.22 (+3% 11.96).**
 18. Support-resistance line.
 19. Flag that becomes BP. High 11.62.
 - 19A. **New Higher High 12.55; Low BP 11.91 (+3% 12.93); Stop 11.19.**
 - 22–24. A good reaction finally occurs at 22 giving a strong Basing Point and good rationale for raising the stop. Notice the interesting fact that points 22 and 24 have come back to rest on the trendline we drew at 10. As the tempo has increased, and the volatility, 24 furnishes us another valid Basing Point.
 - 24A. **New Higher High 12.93; Low BP 12.43 (+3% 13.34); Stop 11.68.**
 - 24B. **New Higher High 13.41; Low BP 13.07 (+3% 13.81); Stop 12.29.**
 25. Even 25 is a valid point and we can now see the clear support line at 26.
 - 25A. **New Higher High 13.82; Low BP 13.36 (+3% 14.23); Stop 12.56.**
 - 25B. Stopped out at 12.56.
 26. Support-resistance line.
 27. When this line is pierced at 27 upon extraordinary volume, and in the process takes out our Basing Point stop from 25, it is clearly time to exit the train.

chapter twenty-nine

Trendlines in action

From what has already been said in Section I of this book, you will be familiar with the characteristic single-line trends of stocks and the numerous exceptions and deviations that come into the picture from time to time. We know stocks often move in parallel trends, sometimes for months, occasionally even for years. We also know they may, and do, break out of trend or change the direction of their trends without notice.

Most of the pattern formations we have studied can be considered as manifestations of trend action, or Continuations or Reversals of a trend.

Thus, a Symmetrical Triangle is simply the meeting of two trends. During the formation of the Triangle, the stock is following both trends in a narrowing pattern until, finally, the dominant trend asserts itself. An Ascending Triangle is following an upward trend but has encountered a Resistance Level at the Top. A Head-and-Shoulders Formation shows the end of an upward trend and the beginning of a downward trend. A Rectangle is a Parallel Trend Channel running in a horizontal direction, and so on.

We can project a Parallel Trend and, in the case of stocks continuing to move in that trend, we can buy and sell at almost the precise points of contact with the trendline. Unfortunately, long and perfect straight-line trends of this sort are the exception rather than the rule. For actual trading purposes, we will project our trends more or less continuously on the basis of the most *recently established data*.

From the standpoint of tactics, let us consider the trends as they are indicated by the successive Minor Tops and Minor Bottoms. For illustration of this, and as a guide to what we are leading up to, we will consider simplified, ideal situations (see the examples in Diagrams 29.1 through 29.6).

To avoid confusion, mark the top trendline in blue pencil and the bottom trendline in red pencil. We will refer to the upper trendline as the Blue Trend, and the lower trendline as the Red Trend. From time to time, we will also want to draw a line parallel to a Blue Trend across the Bottom of the trend so as to include a segment of the Trend Channel between two Tops within parallel lines. This we will call the Blue Parallel, and we will mark it with a dotted or broken blue line. Conversely, we may wish to draw a parallel to the Red Trend so as to include the segment of the Trend Channel between two Bottoms, and this dotted red line we will call the Red Parallel.

Ordinarily, a Top (*wave high*) will be formed after a Bottom (*wave low*) and a Bottom after a Top; thus, we will expect to draw, alternately, a Blue Trendline and a Red Trendline with these lines being drawn as soon as the new Top or Bottom is established. (In some cases, a light pencil line may be drawn to indicate suspected Tops or Bottoms, until developments confirm their validity.)

We have already taken up the important and rather difficult question of determining the Minor Tops and Bottoms. Very often, these points will be clear and obvious. Sometimes they will be obscure, and you will be able to draw trendlines with confidence, in such cases, only after considerable experience covering many types of actions. The most difficult times to determine Minor Trends are during Reversals, especially in cases in which these are of

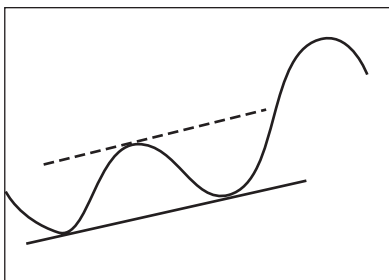


Diagram 29.1 Here is a rising trend showing the Basic Trendline across two Bottoms, which we call the Red Trendline, and its parallel (indicated by a broken line) through the Top of the intervening peak. The parallel suggests the approximate objective of the next move if the stock continues in trend.

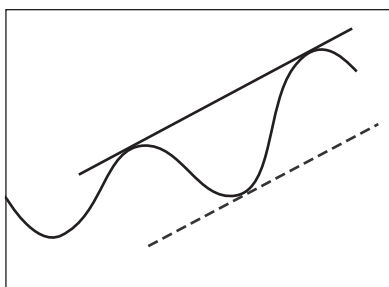


Diagram 29.2 The same rising trend with the Return Line, which we call the Blue Trendline, drawn through two Tops. The broken line represents its parallel through the intervening Bottom. This Blue Parallel is useful in determining a buying point, especially in trends of rapidly changing form when the stock may not react to its Basic Trendline.

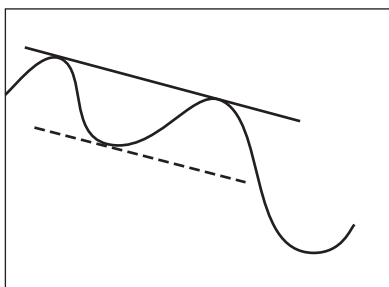


Diagram 29.3 This is a declining trend showing the Basic Trendline across two Tops, which we call the Blue Trendline, and its parallel (indicated by a broken line) through the Bottom of the intervening decline. The parallel suggests the approximate objective of the next move if the stock continues in trend.

the rounded and irregular types. In these cases (of Reversal), however, we will not depend much on the trendlines to determine buying and selling points.

As long as a stock persists in a Parallel Trend Channel, it is perfectly clear to buy near the Bottom of the channel and sell near the Top. From the geometry of the situation (see examples), you will see at a glance it is not likely to be profitable to sell short in an

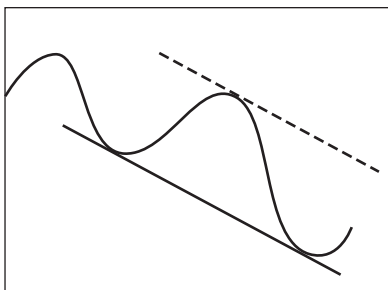


Diagram 29.4 The same declining trend with the Return Line, which we call the Red Trendline, drawn through two Bottoms. The broken line represents its parallel through the intervening Top. This Red Parallel is useful in determining a point at which to make short sales, especially in trends of rapidly changing form when the stock may not rally to its Basic Trendline.

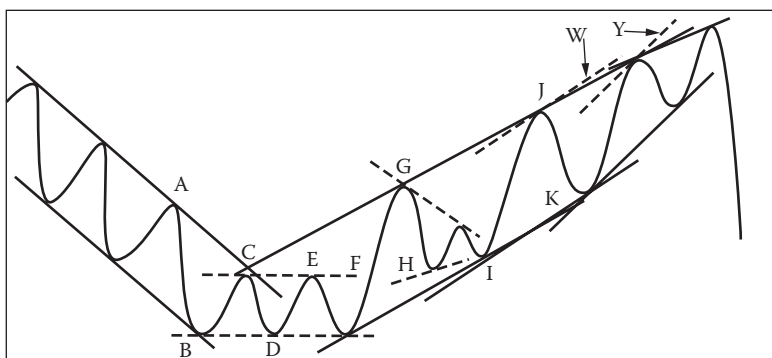


Diagram 29.5 Simplified diagram of a stock chart showing trend action. Basic Trendlines are marked with heavy lines; Return Lines are marked lightly.

upward-moving trend (because the reactions are necessarily smaller than the advances), or to buy stock in a downward-moving trend.

Therefore, a trend must show it is presumably an uptrend before you are justified in buying stock. Plus, you must have what is presumably a downtrend to justify a short sale.

You will notice from the simplified examples shown here that pattern formations indicate trends. The breaking of a Rectangle on the upside results in an upward slope of the Blue Trend. The move up out of an Ascending Triangle confirms the rising Red Trend and creates a rising Blue Trend. The downside breaking of a Head-and-Shoulders neckline confirms a descending Blue Trend and sets up a descending Red Trend, and so on.

From studies of these patterns and various trend actions, we arrive at a compact set of trading rules based on these Red and Blue trendlines. These rules are summarized below.

Buying stock, "going long"

- **Preparatory buying signals** (indicating a buying opportunity may be in the making). Penetration of Blue Trend to a new high closing (in most cases). The simple breaking of a descending Blue Trendline, in cases in which no other pattern or indication is present, is not sufficiently conclusive evidence of Reversal to justify commitments.

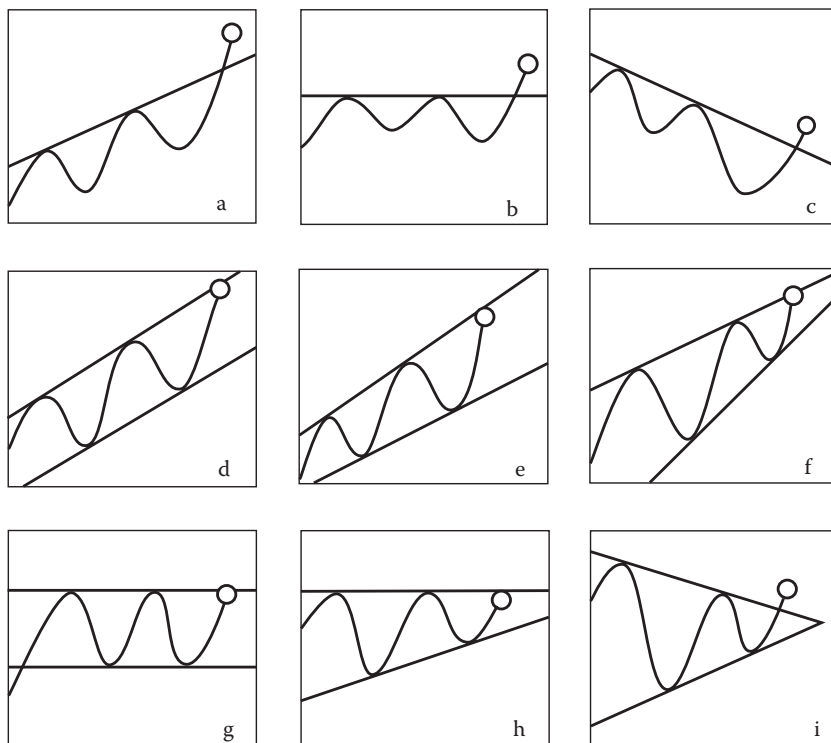


Diagram 29.6 Preparatory buying signals shown by trend action.

- a. Penetration of an ascending Blue Trendline.
 - b. Penetration of a horizontal Blue Trendline.
 - c. The penetration of a descending Blue Trendline without other technical indications is not conclusive evidence of a change in trend and does not justify long commitments.
 - d. Contact with the Blue Trendline of an Ascending Parallel Trend Pattern.
 - e. Contact with the Blue Trendline of an Ascending Divergent Trend Pattern.
 - f. In this case, contact with the Blue Trendline does not suggest a buy on the next reaction, because the trend appears to be converging; a possible Wedge in the making, with Bearish implications.
 - g. Contact with the Blue Trendline of a Rectangle at its fifth point of Reversal.
 - h. Contact with the Blue Trendline of an Ascending Triangle.
 - i. Penetration on volume of descending Blue Trendline when Red Trendline is ascending (Symmetrical Triangle).
- Contact with the ascending Blue Trend if the Red Trend is also ascending, provided the trends do not converge (Parallel or Divergent Trend Channel).
 - Contact with the horizontal Blue Trend if the Red Trend is also horizontal or ascending (Rectangle, Ascending Triangle).
 - Penetration of the descending Blue Trend on volume if the Red Trend is ascending (Symmetrical Triangle).
 - **Execution of buys** (after preparatory buying signal).
 - In case the previous Blue Trend has been ascending, draw the Blue Parallel and buy at or near this line.

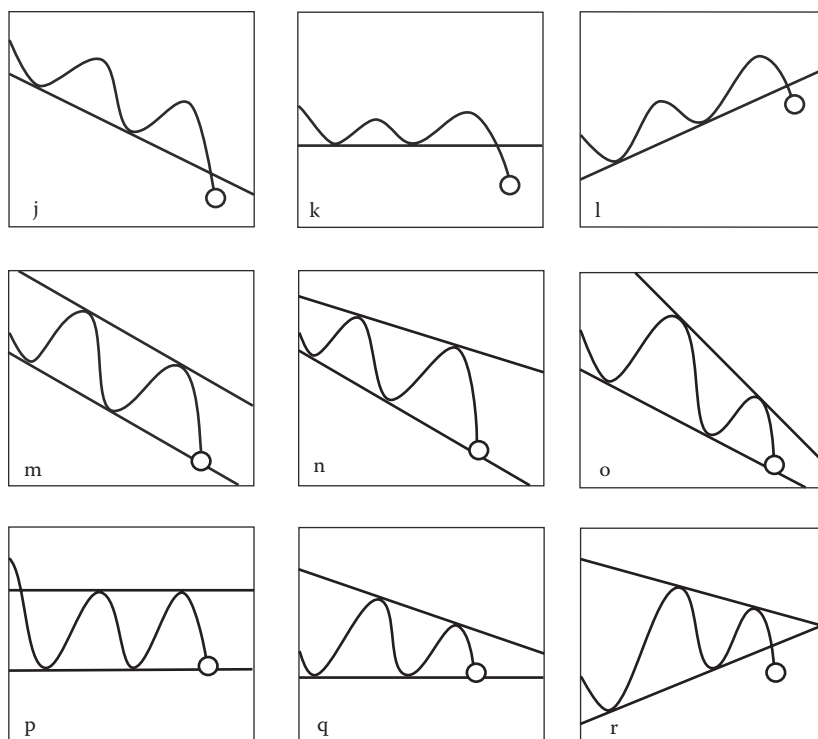


Diagram 29.6 (Continued) Preparatory signals for short sales shown by trend action.

- j. Penetration of a descending Red Trendline.
- k. Penetration of a horizontal Red Trendline.
- l. The penetration of an ascending Red Trendline without other technical indications is not conclusive evidence of a change in trend and does not justify short commitments.
- m. Line of a Descending Parallel Trend Channel.
- n. Contact with the Red Trendline of a Descending Divergent Trend Pattern.
- o. In this case, contact with the Red Trendline does not suggest a short sale on the next rally, because the trend appears to be converging; a possible Wedge in the making, with Bullish implications.
- p. Contact with the Red Trendline of a Rectangle at its fifth point of Reversal.
- q. Contact with the Red Trendline of a Descending Triangle.
- r. Penetration of ascending Red Trendline (with or without volume) when Blue Trendline is descending (Symmetrical Triangle).

In descending trends, the Red Trendline is a return Line, and short sales will be made on rallies to a line parallel to the new Red Trendline established at the Bottom of the signal move and drawn through the intervening peak. Note in the case of decisive breakouts from patterns such as Rectangles and Triangles, a short sale might also be made on the basis of a computed 40%–50% correction of the breakout move, or on a return to Resistance.

- In case the previous Blue Trend has been horizontal or descending (that is to say, emerging from Rectangles, Triangles, and various Reversal Patterns), buy on a reaction of 40%–45% of the distance from the last previous Minor Bottom to the extreme Top of the most recent move.

Liquidating, or selling a long position

Immediately on execution of the buy order, determine the stop level (see [Chapter 27](#), Stop Orders) and place your protective stop. Penetration of this stop level will automatically close out your transaction. The stop level may be moved up according to the “three-days-away” rule but may never be moved down (except to adjust for ex-dividend or ex-rights). If the stock closes below a previous Minor Bottom (thus setting up a descending Red Trend), sell on tight (*EN: or hair-trigger*) progressive stops.

At the start, the stock declines in a Parallel Trend Channel. The Blue Trendline is basic here. A short sale on a rally to the Red Parallel at point A will find its objective on the Blue Parallel at B. Another short sale on the Red Parallel at C would be followed by failure to reach the objective. Chances are good, however, that increased volume would develop at the Double Bottom and give warning to get out of short commitments. The upside penetration of the basic Blue Trendline at E, alone, is not sufficient reason to reverse position and go long. Trendlines set up during formation of the Rectangle would be marked in the regular way, but they are indicated here by broken lines to emphasize the pattern. Another short sale, if tried on the sixth point of contact with the Rectangle at F, would be stopped out on the breakout.

The trend is now rising, although we cannot yet draw a Basic (Red) Trendline. The first buy would be made on a 40%–50% correction of the breakout move from the Rectangle, or on a return to the Top (Support) level at H.

A trendline would be drawn to the first Bottom established in the Triangle. This is not shown, as it would ultimately be replaced by the line shown through the outermost point in the Triangle. We have indicated by broken lines the trendlines set up during the formation of the pattern.

The objective of the breakout move from the Triangle would be the Red Parallel to our now rising Basic Trendline; this objective is reached at J. A Return Line (Blue) would be drawn from the first Reversal Top of the Triangle at G through the Top of the breakout move at J, and the parallel to this through point I would indicate about where to make the next purchase. As a matter of fact, the stock does not actually get back to that point; in practice, the purchase would probably be made at K on the basis of a 40%–50% correction, or on a reaction to the Support Level G.

The subsequent upward move would not carry through to the Red Parallel marked W; however, the alarm would probably be sounded clearly by a day of heavy volume, a One-Day Reversal, or a gap. Since the trend is now obviously convergent, no further purchases would be considered. The next move fails to make such headway and falls far short of the objective set by the Red Parallel marked Y. Soon after, the Wedge breaks out downside.

If the stock advances on moderate volume and then develops unusually high volume on any day during the advance before either the Blue Trend is broken (with a close above that trendline) or before the stock has made a new high closing over the last Minor Top, close out the transaction on tight progressive stops.

If the stock develops high volume on the day on which it either tops and closes above the Blue Trend or makes a new high closing over the previous Minor Top, hold it. If heavy volume again occurs on the following day or any subsequent day, however, sell on tight progressive stops.

In rising trends, the Blue Trendline is a Return Line, and purchases will be made on reactions to a line parallel to the new Blue Trendline established at the Top of the signal move and drawn through the intervening Bottom. Note in the case of decisive breakouts from patterns such as Rectangles and Triangles, a purchase may also be made on the basis of a computed 40%–50% correction of the breakout move, or on a return to Support.

You will find in many cases the heavy volume signal will develop (sometimes with also a One-Day Reversal or an Exhaustion Gap) on or near the Red Parallel; watch especially for this volume indication as a sign of a good profit-taking point. If the volume signal does not show up, your selling objective is this Red Parallel, at a limit or on tight progressive stops. In case there is no such volume signal at the top of the move and the move does not reach the Blue Trend or make a new high, you are very likely running into a Triangle situation. In that case, you will have to wait for a breakout one way or another. Meanwhile, maintain your stop protection underneath.

Selling stock short

- **Preparatory selling signals** (indicating an opportunity for short sales may be in the making).
 - Penetration of Red Trend to a new low closing (in most cases). The simple breaking of an ascending Red Trendline where *no other* pattern or indication is present is not sufficiently conclusive evidence of Reversal to justify commitments.
 - Contact with descending Red Trend if Blue Trend is also descending, provided the trends do not converge (Parallel or Divergent Trend Channel).
 - Contact with horizontal Red Trend if Blue Trend is also horizontal or descending (Rectangle, Descending Triangle).
 - Penetration of ascending Red Trend (with or without volume increase) if Blue Trend is descending (Symmetrical Triangle).
- **Execution of short sales** (after preparatory selling signal).
 - In case the previous Red Trend has been descending, draw the Red Parallel and sell at or near this line.
 - In case the previous Red Trend has been horizontal or ascending (that is to say, emerging from Rectangles, Triangles, and various Reversal Patterns), sell on a rally of 40%–45% of the distance from the last previous Minor Top to the extreme Bottom of the most recent move.

Covering short sales

Immediately on execution of the short sale, determine the stop level (see [Chapter 27](#), Stop Orders) and place your protective stop. Penetration of this stop level will automatically close out your transaction. The stop level may be moved down according to the three-days-away rule, but it may never be moved up.

If the stock closes above a previous Minor Top (thus setting up an ascending Blue Trend), buy to cover on tight progressive stops.

If the stock declines on moderate volume and then develops unusually high volume on any day during the decline before either the Red Trend is broken (with a close below that trendline), or before the stock has made a new low closing under the last Minor Bottom, close out the transaction on tight progressive stops.

If the stock develops high volume on the day on which it either breaks and closes below the Red Trend or makes a new low closing under the previous Minor Bottom, hold it short. If heavy volume again occurs on the following day or any subsequent day, however, buy to cover on tight progressive stops.

You will find in many cases the heavy volume signal will develop (sometimes with also a One-Day Reversal or an Exhaustion Gap) on or near the Blue Parallel; watch especially for this volume indication as a sign of a good profit-taking point. If the volume signal does

not show up, your buying objective is the Blue Parallel, at a limit or on tight progressive stops. In case there is no such volume signal at the bottom of the move and the move does not reach the Red Trend or make a new low, you are very likely running into a Triangle situation. In that case, you will have to wait for a breakout one way or another, meanwhile maintaining your stop protection overhead.

Additional suggestions

When a level is reached that appears to be either a Minor Bottom on a reaction or a Minor Top on a rally, and when the stock continues to stall and remain at this point, moving in a very narrow range for three weeks or more without giving any signal either by way of price change or volume action as to its next move, it is wise to assume this congestion is definitely a key area and should be considered a Minor Top or Bottom; protective stops should be adjusted to it as a Basing Point, instead of the previously established Top or Bottom, as against the possibility that the move out of this area, when it comes, *may* be in the wrong direction.

After a series of moves in a trend, with each move in the Primary Direction marked by heavier volume than the retreats or Corrective Moves against the trend, you are likely to have a move in the Primary Direction, which is marked by *extraordinary* volume (much larger volume than the normal increase for a Primary Move). On such a move, after taking your profits on previous commitments, you would ordinarily begin to plan the next commitment on the Correction. In this particular case, noting the extreme volume, you would cancel any immediate plans for further commitments in the Primary Direction.

The reason for this is such *climactic* volume normally indicates the final “blow-off” of the Intermediate Trend, to be followed either by a Reversal, or at least by a period of stagnation, or by formation of Consolidation Patterns, or by Intermediate Correction. In such a case, it is not safe to make any further commitments on this trend pending further developments and the positive reassertion of the trend.

If you examine daily charts of various stocks, covering long and important trends, you will find the series of Minor Moves making up the Intermediate Trend is likely to culminate in a Minor Move marked by tremendous volume. This is truer of Tops than Bottoms, although at the end of the Panic Phase of a Bear Market, we very often see climactic volume. The climax indicates, on the other hand, the sale of large amounts of stock by strong investors to weak traders, near the top; on the other hand, the liquidation of holdings by weak traders occurs near the bottom, into the hands of strong investors who will hold them for the next Major Move.

One of the most common errors, and easiest to fall into, is to mistake a Climactic Top or Bottom for a normal confirmation or preparatory signal for a new commitment in line with the preceding trend.

It is similar in nature to the error often made by novices in the market of buying on the Minor Tops (becoming dazzled with the rapid price advance and the great volume of activity). However, in the case of these final “blow-off” moves, the volume is greater and the adverse portent far more serious.

General outline of policy for trading in the Major Trend

- A. Always trade in the direction of the Major or Primary Dow Trend (EN: see the editor's comments in [Chapter 3](#)) as it is indicated at the time.

- B. If the two component Averages of the Dow Theory (Industrials and Rails; EN9: *Transportations*) are not in agreement, trade in the direction of the last established Primary Trend but only in the component that is still following that trend.
- C. Examine charts of group Averages covering groups of businesses in the same or related lines; trade in the Primary Direction when the trend of the group corresponds.
- D. Trade in any particular stock when its own individual chart indicates a trend in the same direction as the Primary Trend, and when the technical picture has indicated a probable move in that direction.

Make all new commitments on the reactions or rallies following the signaling move in the Primary direction, except in the case of Primary Reversals from Bull Market to Bear Market, when short sales may be made at the market immediately following the Reversal.

Exception: after an extended move or a series of moves in the Primary Direction, when signs of exhaustion and Reversal appear in individual charts, commitments in the opposite direction may be made with objectives limited to a correction of the preceding Intermediate Move in the Primary Direction.

(EN9: Now the reader's head is spinning and the color blind are completely confused. As this book is unfortunately printed in black and white, the reader without colored pencils will be at sea. This is what I recommend: take out your colored pencils and color the lines yourself. The principles articulated here by Magee are of great value to a trader and are worth studying.)



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chapter thirty

Use of Support and Resistance

We know that after many breakouts from well-defined Reversal and Consolidation Patterns, we get a short countermove back to the edge of the pattern and the checking of this move at that point is an example of Support or Resistance, as the case may be. Also, we should be familiar by now with the tendency of stocks to move up or down in a series of zigzag steps (*EN10: i.e., waves and wavelets*). If the move is upward, the reaction after each advance tends to stop at the level of the preceding peak. If the move is downward, the rally after each decline tends to stop at the level of the preceding bottom. This is again a matter of Support and Resistance and provides the basis for buying on reactions or selling on rallies. It has also been pointed out Intermediate Secondary Moves will frequently stop at or close to the previous Intermediate Top or Bottom.

It is necessary to evaluate the importance of these phenomena of Support and Resistance and apply them in market practice, for they are among the most important tools we have. Unfortunately, it is not easy to reduce this particular subject to a neat formula or body of rules. (*EN9: And the effort will be made. See endnote of this chapter for an interesting effort to do just that.*) Here you will depend very largely on experience and observation. You will have to be alert in spotting the levels at which Resistance or Support is likely to be encountered, and some judgment is needed in balancing the various factors that will affect the situation.

For example, there is a stock that has broken up out of a well-defined Rectangle of considerable duration. Should the heavy volume of the breakout move give way to a dull reaction, you will look for an opportunity to buy this stock at a point a little above the top level of the Rectangle. It will probably not penetrate very far below that level and, indeed, will often fail to react all the way to the Support. If the stock should then advance to a new high, and once more decline on low volume, you may look for another buying point at about the level of the peak reached on the original breakout. Another advance may be followed by reaction to the second peak, and this process may be repeated a number of times, each reaction carrying back to the level of the preceding high.

Now we all know this sort of thing does not continue indefinitely. When the stock first breaks out, moving from, say, 15 to 19, we may buy rather confidently on the reaction to 17, if that is the Support Level. If we did not buy on this move, we may buy with considerable assurance on the reaction to Support after the next advance. This advance might have carried the price to 21 and our buying point would be at the previous peak of 19. As the stock moves up to 25, 30, 40, it must be clear we are approaching a real Top; although we cannot say where that Top will be reached, we can be sure it is becoming increasingly tempting to long-time holders of this stock to sell and take their substantial gains. The series of steps is bound to come to an end. To be sure, the Major course of the stock and of the market may continue up for months or years, but after a series of sharp rises, we may reasonably expect a Reversal and a rather substantial Intermediate Decline before the upward move is continued.

Therefore, we must regard each successive step of advance with increasing suspicion; after a stock has made three such moves in the Primary Direction, it is time to look for an Intermediate Correction or at least for an important period of Consolidation. Thus, we have

the rough shape of a rule. Buy on the reaction to Support after the first breakout; buy on the reaction to the first Minor Peak after the next move, but do not buy on the reaction to the second Minor Peak.

Let us say, then, we have been successful in two short-term moves, buying on the reaction to Support and selling on the climax after a new Top has been made. Nevertheless, we have decided not to attempt a third such trade. What, then, may we expect next? We may see a period of Consolidation, we may see the beginning of an Intermediate Decline, or we may see the stock actually go right on moving up. No matter—we will wait for the Intermediate Reaction. We will wait until the stock makes a very substantial decline, and this may take many weeks. Then, if the Major Trend has not reversed itself, we will again look for a buying opportunity at (or somewhat above) the Intermediate Support, which will usually be the top level of the advance preceding the one just completed, for this is the level from which the next Primary Advance is likely to proceed and is a good buying point.

We find the same situation in Bear Markets. A breakout is likely to be followed by one, two, three, or more steps of decline, with intervening rallies to Minor Resistance. Sooner or later (and we would count on no more than three such steps in a series), we will get a turn and an Intermediate Recovery. We will then wait for this rally, which may itself be made up of several Minor steps, to reach or approach closely the preceding Intermediate Bottom, at which point we may look for substantial Resistance. Here is the place again to put out shorts.

Questions will come to your mind. One of them, and one of the most important: how do we decide when an expected Support or Resistance has failed us, and at what point do we then abandon our position?

It will be clear this question can be a very painful one. Let us suppose you have seen a stock rise to 25 and have placed an order to buy it at 23 1/2 on the basis of expected Support at 23, the level of a previous Minor Peak. The order is executed during a dull reaction. The next day, the stock slips down to 22 1/2, on perhaps only two or three sales. The next day, it continues down to 21 1/2, still on low volume. Plus, during the next week, it goes down steadily, without much volume, nearly every sale being at a lower price, as though no new bids were being received, and as though no substantial number of bids were standing on the book at any point. A decline of this sort can eventually assume the magnitude of an Intermediate Reaction. The move may carry down to 15 before it turns. Obviously, this was not what you expected, and you should be out of the stock.

The painful part of these drifting moves is you do not want to sell your stock (which you bought at 23 1/2) on just a slight move down, say to 22 3/4, because the probability is strong it will shoot up at any moment to new high levels. Yet, at some point during a continued decline, you must decide, "This has gone through the Support; I should sell and take a small loss now, rather than risk a more serious loss." The most painful part of all is, sometimes, the moment you have sold and taken your loss, the stock will come to life and complete what would have been an extremely profitable move.

You might just as well prepare yourself for this sort of disappointment, for it will happen to you. To avoid nights of pacing the floor and days of worry, you should decide, *at the time you make the original commitment*, just how much leeway you are prepared to give the stock. Then you will not be tempted to put off a decision from day to day if things are not going the way you hoped.

In the case of purchases or short sales made against Minor Peaks or Bottoms, as the case may be, you might set up the following rule. Measuring from the extreme high of the previous (Supporting) Minor Top, or the extreme low of the previous (resisting) Minor Bottom, set a stop using the method we have outlined in [Chapter 27](#). (EN9: See also [Chapter 28](#)

and consider the risk limitation procedures in [Chapter 42](#).) This often would be the intraday high or low, not necessarily the closing price. Penetration to that extent should be presumptive evidence that your expected Support or Resistance is not going to function.

Where you are buying against Major or Intermediate Support, or selling short against Major or Intermediate Resistance, you can allow a little more leeway for penetration. In such cases, examine the Support or Resistance Area, and estimate visually its core or axis; in other words, try to gauge the “center of gravity” of this area, the point is most nearly the mean price of sales occurring there, taking into account the volume, because the important thing is to determine the approximate price level at which a great many shares changed hands. Having determined this point, set your stop beyond it, according to the methods specified in [Chapter 27](#).

Up to this point we have concerned ourselves (reversing the usual order) with how to get out of situations that have gone bad. We have said nothing about where, precisely, to get in, nor where, precisely, to take profits.

In the matter of getting in, that is, making the original commitment, you might feel there is a conflict between acting on Support or Resistance and acting on either trendline action or a computed reaction of 40% to 50% after a previous move. At times, these conflicts might arise and it is not possible to state any exact rule that will reconcile these three different trading indications. In a great number of cases, however, you will be delighted to observe a reaction of about 45% will bring your stock to the trendline and will also bring it near to the Support or Resistance Level. After a move to a new Minor Top, a stock may be expected to react (1) about 40% to 50% of that move, (2) to the Basic Trendline, and (3) to the previous supporting Minor Top. Your purchase, then, will be based on a consideration of all three factors. If you have bought “early,” on the basis of one factor alone, you may expect the stock to react a bit further without spoiling the triple indications to the extent of catching your stop. It would be best to make your purchases on the basis of whichever factor indicates the smallest reaction and to place your stop beyond the greatest reaction indicated by any of the three. Ordinarily, there will not be too much difference between these three factors. As usual, the method applies in reverse to short sales.

In cases in which you are buying after an Intermediate Decline or selling after an Intermediate Rally, you will lean somewhat more heavily on Support and Resistance than on either a computed percentage for the Secondary Move or a trendline. You will examine the history of the stock, preferably on weekly or monthly charts first, to see its Major Trend, to locate important Support or Resistance Areas, and to estimate roughly the extent of the Corrective Move, the termination of which you are trying to gauge. You will then check these data in the more detailed picture you can get from your daily charts. As the Intermediate Corrective Move approaches within 4% or 5% of the Support or Resistance Level, you may come to a day of extremely heavy volume, and this day may also be a One-Day Reversal. If so, your commitment should be made at once and protected by a stop. Otherwise, you may make your commitment whenever the chart begins to hesitate or flatten out, or, lacking other indications, when it has come to within 3% of the Support or Resistance.

In this case, your problem in taking profits is a bit more difficult than in the case of Minor Moves. You are expecting a Reversal of the Intermediate Corrective Move and the establishment of a new Intermediate Trend in the Primary Direction. You are at a point at which the course of the market is uncertain. You must realize prices may stay at the Support (or Resistance) Level, forming a Line or Rectangle, and finally penetrate that level, establishing Reversal of the Major Trend. However, they may be stopped and turned at the Support or Resistance Level, only to make a small move away and then return for another,

and possibly successful, attempt at penetration. Then again (and this is what you hope), a continuation of the Major Trend may develop with a sharp move on increased volume in the favorable direction, to be followed by a Minor Corrective Move and another thrust in the Primary direction—perhaps a new series of Minor Moves carrying the entire Primary Trend into new ground.

Taking these cases one by one, if the stock remains at the Support or Resistance Level for many days or several weeks and then penetrates that level, closing at a price that is clearly through it, get out at once. If the stock makes a small move in the right direction and returns to the Support or Resistance, prepare to get out if there is a definite penetration. If, however, the move is in the right direction, watch for volume indications, and prepare to set tight stops to take your profits as soon as heavy volume appears (except on a day of breakout). Once such a signal has appeared, you are then justified in continuing to make new commitments on the following Minor Correction, and the one following that, for you are again moving in the Major Trend.

One other situation should be mentioned; up to this point, we have assumed all of your commitments have been made to take advantage of a move in the direction of the Major Trend. Let us suppose a move that has carried a stock up to new high levels in a series of Minor steps proceeds to form and then breaks out of a Reversal Pattern. We must now look for a Secondary Move of Intermediate extent. We may sell short on the rally to the Minor Resistance, and, if the move continues down, we may make a second and even (more cautiously) a third commitment against successive Minor Bottoms. In this case, we will be looking for the decline to end somewhere in the vicinity of the last previous Intermediate Top, which is now a Support Level. Similarly, following a recognized Reversal Pattern and upward breakout on volume during a Bear Market, we may expect an Intermediate Rally that can be used for trading up to the previous Intermediate Bottom where strong Resistance is likely to show up. A skillful trader can turn these Secondary Moves into profits during periods when it is not possible to trade along the indicated Primary Trend; however, it should be remembered, ordinarily, such moves cannot be expected to go as far as will those in the Primary Direction.

We might close this chapter by reminding you again that, although Support and Resistance action in the Minor Trend is shown clearly in daily charts, the Intermediate and Major Supports and Resistances are most easily recognized on weekly or monthly charts.

(EN9: It seems to this editor that Magee's discussion here of the use of Support and Resistance is really most pertinent to position building and pyramiding. Alternatively, the method applies to an issue that has just caught the analyst's attention, and he has missed the breakout, which is usually obvious (at least in hindsight). I feel strongly that the serious trader should not miss the original breakout. Chasing moving trains is never a healthy activity. Does this appear an impossible occupation, to watch thousands of stocks? Impossible for your average analyst, but not for your average computer. For example, the computer may be programmed to alert you when a stock is gapping on volume or trading at volumes that are suspiciously large. And given the plethora of services and user groups, the trader stands a good chance of spotting an issue to put on his watch list before it takes off.

Investors should, in theory, never miss a breakout, because they should be watching a much more limited group of issues. In my opinion, these are primarily indexes and iShares. An investor's portfolio might include a few well-chosen individual issues, but these would be of obvious visibility to the individual, for example, biotechs for an investor with some knowledge of the area, or Internets for an engineer, and so on.

The unending effort to remove ambiguity from market interpretation extends to identifying areas of Support and Resistance. Metastock (<http://www.metastock.com>), an excellent software package,

has a number of value-added packages. One of the more interesting of these, Powerstrike™ by John Slauson of Adaptick, Inc. (<http://www.adaptick.com>) attempts to mathematically define Support and Resistance zones. Slauson's package is interesting, and the reasoning and observation behind it are interesting as well. Market analysis is rooted in one thing: the intelligent observation of the operation of the market. Dow watched the markets for years and came to the understanding of waves that led to Dow Theory. Schabacker and Edwards, equipped with these observations and comments, collated and observed more data and recognized the persistent patterns that occurred over and over in the markets, and added Magee for his practical engineer's approach to solving the tactical and strategic questions. In the 1980s, one of my friends, a Chicago market maker in the options pit, noticed that there was a 90-second delay on data coming out of the futures pits to the options pit. He set up a "human ticker" with a direct phone connection to his pit and enjoyed a 90-second advantage over other market makers until the glitch was noticed and corrected.

Slauson (among others) noticed that important trading and Support and Resistance in optionable stocks tended to cluster around important option strike price levels. In fact, these levels influence stock prices and may be said to determine where "important" buying and selling occur. Obviously, Support and Resistance Levels are set by concentrated face-offs between buyers and sellers. A battleground metaphor is appropriate: since the time of the Greeks, battles have occurred time and again in the same physical locations. The reason is obvious. You need physical space to deploy an army. So commanders will be attracted to the plain or open ground for face-offs and to the high ground for defensive purposes. Option strike prices have the same attractiveness for traders that a good battleground has for a military commander. A good place to test the enemy.

Powerstrike™ analyzes the instrument price and volume around the nearby option strike prices and determines whether Support or Resistance is stronger. All in all, this is a clever application of number-driven analysis to the Support and Resistance question. The chart analyst may supplement his analysis with a routine like this.)



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chapter thirty-one

Not all in one basket

(EN: As diversification for the general investor is nowadays infinitely easier, an important endnote follows Magee's text.)

Diversification is important because technical patterns do not always carry out their original promise. If all your capital is tied up in one stock, or in a few stocks of the same group or line of business, you may be hurt by a false move affecting only your holdings, even though the rest of the market may continue to hold firm or even to move farther along the Primary Trend. By diversifying, you are protected by the law of averages against all of your holdings going the wrong way, except in the case of some Reversal affecting the entire market or a large segment of it.

Intelligent diversification calls for study of the costs of buying and selling stocks, especially in small quantities. You might wish to have a portfolio of stocks representing the entire Dow-Jones Averages, or a selection that includes at least one stock of every major group. However, if your capital is limited, this might mean buying only a half-dozen shares of each stock, and the minimum commission charges would make this an expensive operation, entirely too costly for short-term trading. The short-term trader must always think of these costs. They are more important to him than to the long-term investor who may intend to hold the same stock for many months or years. To you as a trader, a quarter point or a half point may amount to serious proportions when it is multiplied through a number of transactions.

Your broker can give you a schedule showing commission and tax costs, and in case there are any important changes in the rates, which you should study to see what effect they will have on your costs of trading in stocks at various prices. *(EN: You may also evaluate these charges at <http://www.gomez.com> and by checking websites of <http://www.scottrade.com>, <http://www.etrade.com>, and <http://www.tdameritrade.com>. Google is, as ever, an important price-checking resource, and Barron's publishes a yearly edition evaluating brokerage houses. In general, this editor believes the investor who does it the "old-fashioned way," that is, by phone and human broker, operates at a disadvantage unless the broker's value added can be quantified and proven.)*

You will find your round-trip costs are a higher percentage of the capital invested in low-priced stocks than in high-priced stocks. Also, the percentage costs will be higher on a smaller number of shares than on a round lot and increasing as the number of shares decreases. Additionally, the percentage costs rise as the total amount of capital used is less.

If your capital is, say \$1,000 or \$2,000, you might do well to divide it into units of about \$500 each and confine your trading to odd lots of stocks selling at 40 or higher. With larger capital, you could use larger trading units and extend the range of trading into somewhat lower priced stock. In any case, it is important to diversify your holdings. By dividing your capital and using it in such a way as to avoid unnecessary penalties in high costs, you will have greater protection against freak moves and sudden changes that might affect a single stock very seriously.

On the other hand, if you have sufficient capital to secure plenty of diversification (8 or 10 stocks should be a maximum for an active trading account), you can increase the size of the trading units. The whole question here is as to the minimum amounts to be invested in

a single commitment and, if these amounts were doubled or tripled, it would not increase costs, but would, in many cases, reduce them.

EN: diversification and costs

In this original chapter, Magee discussed the necessity for considering costs while striving for diversification. In present-day markets, diversification may be achieved through the use of Standard & Poor's Depository Receipts (SPDRs; SPY) and DIAMONDS™ (DIA) and similar instruments (ETFs) at comparatively reasonable costs. Index funds and mutual funds also represent diversification and cost control for the general investor. Mutual funds will not control costs and expenses as efficiently as the Index Shares and ETFs. This is because mutual funds create costs that the Index Shares do not: management fees and expenses, slippage, the spread, turnover, and taxes resulting from realized gains. These costs may be avoided by the careful independent investor.

An internationally prominent trader has told me, on more than one occasion, his considerable trading fortune amounts to what brokers and specialists would have made off of him if he had been a member of the general public instead of a member of the Exchanges. The most important weapons in his quiver were seats in Chicago, New York, and San Francisco.

The message is extremely clear. The general investor must control his costs. The more frequently he trades, the greater his chances of having his capital ground to hamburger meat by brokers, specialists, floor traders, market makers, tax authorities, Exchanges, etc., etc., because there is undoubtedly another party out there taking a chunk as the capital changes hands. The phone company maybe.

*Trading costs are the last item brokerage firms want to focus on (see the book *Where Are the Customers' Yachts?*). For years, the Street firms and Exchanges controlled commission costs, keeping them high, but entering the Internet age a different ethos rules—cutthroat (and cut fees) competition, reluctantly brought to the old-line exchanges and brokers by upstart competitors, and not suppressed by the Securities and Exchange Commission (SEC) and the Commodities Futures Trading Commission.*

It would be misleading to attempt to analyze costs in this book because of the mercurial nature of cost figures as firms compete in the Internet age.

The SEC runs a mutual fund calculator for computing costs of mutual funds. Mutual funds are among those that manage somehow to not be overly punctilious in estimating (read, disclosing) their costs to investors. Another good resource for researching mutual funds is <http://www.morningstar.com>.

But let me emphasize once again that iShares and ETFs have really made mutual funds obsolete if the investor uses the simple procedures outlined in this book.

Measuring implications in technical chart patterns

If you show one of your charts to a friend and tell him it looks Bullish, he will reply immediately, "How far do you think it will go?" This is an automatic response; you can count on it.

The question is a good one. How far is this expected move likely to go? You do not know, nor does anyone. Very often you can say, with a fair degree of assurance, "This stock, which has just made such-and-such an advance, is likely to react to around such-and-such a price." *That* you can estimate fairly closely 7 or 8 times out of 10, by referring to the Basic Trendline, the parallel projection of the top trendline, or the Support Level.

These rules work out fairly well as applied to reactions in the Bull Trend, and similarly, we can estimate rallies in a Bear Trend. Not so with the move in the direction of the trend itself. A Bullish Move may, and often does, overrun the upper trendline by running up as far again as the move to the trendline. A Bearish Move may exceed the downtrend, dropping apparently without limit. (That is one reason we have protective stops—to prevent disaster in case the trend suddenly reverses itself.) Additionally, it is why we prefer the use of nearby progressive stops as a method of taking profits, rather than using limit orders placed at a trendline, Resistance Level, or at some other definite point. Very often, to be sure, a stock *will* check its advance at one of these indicated points, but the cases in which a move carries beyond its objectives are fairly common, and in such cases, no one can make even a reasonable guess as to what limit the stock will reach on the move.

This follows because the move itself is an unreasonable one. It is an example of public participation, the surge of uncontrolled speculation (and, very often, it is the final surge of that particular trend).

In exactly the same way, and often more violently, the uncontrolled falling out of trend in a downward move is an example of Panic, and being completely beyond reason, it follows no rule and knows no predetermined limits.

There are, however, certain patterns and certain situations in which we can make some estimate of the probable extent of a move in the Primary Direction—usually an estimate of its minimum extent. In these cases, we have a guide to help us in making the decision as to whether the situation offers enough potential gain to be worth the risks involved. Also, the indicated measurement gives us *at least* a hint of about where we might reasonably begin to look for the volume that will indicate the Top.

For example, a decisive breakout from a Symmetrical Triangle is likely to carry *at least* as far as the height of the Triangle measured along its first reaction. This is a conservative measurement. The move may go much farther. In fact, the trend implications of the Triangle would suggest a continuation equal to the move preceding the Triangle and leading into it, for if the trend continues valid, the move should run up to the upper limit of the channel. In the case of a Reversal, we would also use the height of the first reaction as a minimum measure. With Right-Angle Triangles, we also can take the long side (formed by the first reaction) as a rough measure of the minimum expected move.

What is more, with Rectangles the minimum we may reasonably expect after a breakout is a distance equal to the height of the Rectangle. The Head-and-Shoulders Pattern carries a good measuring stick. The height of the formation from the extreme Top of the head down to the point directly beneath where the neckline crosses represents the minimum probable move from the neckline down. Again, this is a matter of Trend Channels, and most emphatically, this is only a minimum move. Some Head-and-Shoulders Patterns, representing an implied move of no more than 3 or 4 points, have marked the start of a decline eventually running to hundreds of points.

The rather unusual breakout that takes the form of an almost vertical “mast” running up (or down) many points before arriving at a stopping point, where some Consolidation Pattern is made, carries with it a most explicit measuring rule, and one that works out with amazing accuracy. The Flag or Pennant Consolidation will occur at the halfway point—“the Flag flies at half-mast.” The speculation move leading up to the Flag very likely will be duplicated by another rise, at least equal to the first, in the near future. Following this rise, there may be another Consolidation and other rises, or there may not. After two surges of this sort, it is best to stand back and let someone else carry the ball. If you keep enough charts, and for a long enough time, you will see many perfect examples of this beautiful formation. You will also see some imperfect examples and some failures. And because the move is so spectacularly profitable when it works out, you will be tempted to buy on every Consolidation Pattern formed after a sharp rise. It would be best to wait until the example is clear—a nearly vertical, almost unbelievable rise, followed by several days of congestion with practically no volume. If the congestion continues or sags off for more than about three weeks, sell the stock; it is probably not the real thing.

Needless to say, this same pattern appears in reverse in downtrends and can be traded on accordingly.

The questions relating to the measuring attributes of gaps have been reviewed in detail in [Chapter 12](#). The only type of gap that carries substantial implications as to the extent of the move to follow is the Runaway or Continuation Gap. The appearance of such a gap during a rapid price move is likely to mark approximately the halfway point; two or more such gaps can be weighed, in connection with volume and total extent of the move, to estimate the probable midpoint of the move and thus to predict a probable ultimate objective.

Measuring properties have been ascribed to other patterns and occasionally work out according to plan. In general, the best measuring devices are your trendlines, Support-and-Resistance Levels, and the all-important signals of increased volume.

Other tools exist for measuring moves. Arthur Sklarew (see Bibliography) describes the-rule-of-seven, which I have often found effective. In addition, Wyckoff used PnF charts to measure moves and I have seen some impressive analyses produced by Professor Hank Pruden using PnF charts.

(EN9: I have always been extremely chary of measuring moves. If the measurement does not lead the trader to indulge in expectations that distract him from the crucial nature of the moment at hand, it might be quite all right. So, as an off-hand casual tool, it might serve some use. Always better to observe closely what the situation is when the price arrives at the measured point. Decisions should always be made in the here and now, and not in the “I measured it then.”)

chapter thirty-three

Tactical review of chart action

The Dow Theory

(EN: In this chapter, multiple references are made to the tight stop – 1/8 point which decimalizes to .125. Readers should read this as decimal.13 to.25, depending on the habits of the issue. Issues greater than a dollar are quoted at two decimal places. Penny stocks can go to 4 decimal places.)

The record shows an investor who had bought a representative group of stocks on every Major Bull Market signal according to the Dow Theory, as outlined in [Chapters 3](#) through [5](#), and sold all his stocks on every Major Bear Market signal, since the start of the Dow Averages, would have come out very well indeed over the years. *(EN: see tables in [Chapter 4](#).)* Although this tabulation does not take short sales into account *(EN9: now taken into account in the ninth edition)*, it would be perfectly consistent to add a representative group of stocks might be sold short on every Major Bear Market signal and covered at the next Bull Market signal. Additionally, if the figures for such short sales, based on the level of the Industrial Average, were included, the total profits on these theoretical transactions, both long and short, would be enormous. *(EN9: Buy and Hold to 2018: \$55,411.83. Dow Theory, long only: \$795,592.01. Dow Theory, long and short: \$5,757,390.17.)* (For illustrations in this chapter, see [Figures 33.1](#) through [33.16](#).)

We believe this record carries some weighty implications that have a bearing on the operations of every trader and investor. We will comment on these shortly, but before doing so, it should be pointed out that few, if any, investors have actually followed the long-time Dow signals, buying or selling 100% on every Major signal.

In the first place, to do so would require a long market lifetime and would presuppose the investor had accepted the Dow Theory in its classic form *in toto* from the start and he had never wavered, never altered the definitions nor his method of trading, and never withdrew any of his capital during the entire period.

In the second place, we would have to assume our ideal investor had an extraordinary degree of courage to stand firm in periods during which the Major Trend appeared to be making dangerous threats against his position and an extraordinary degree of patience to wait out the many months of stagnation when the trend seemed to be getting nowhere at all.

Finally, we would have to make the assumption the group of stocks actually bought or sold really represented a fair cross-section of the Averages in that they would make about the same moves as the Average itself. As a matter of fact, if the group were well diversified, the chances are good its moves might approximate those of the Averages.

However, it is taking a lot for granted to suppose an investor could meet all of these conditions over a period of years, which he would have to do to operate strictly as a “Dow Theory” trader. It is not seriously suggested anyone try to follow any such plan literally. *(EN: Well, in retrospect, why not? Given, in the Internet age, the availability of trading instruments and markets [DIAMOND™—DIA, Standard & Poor’s Depositary Receipts—SPY] it might not*

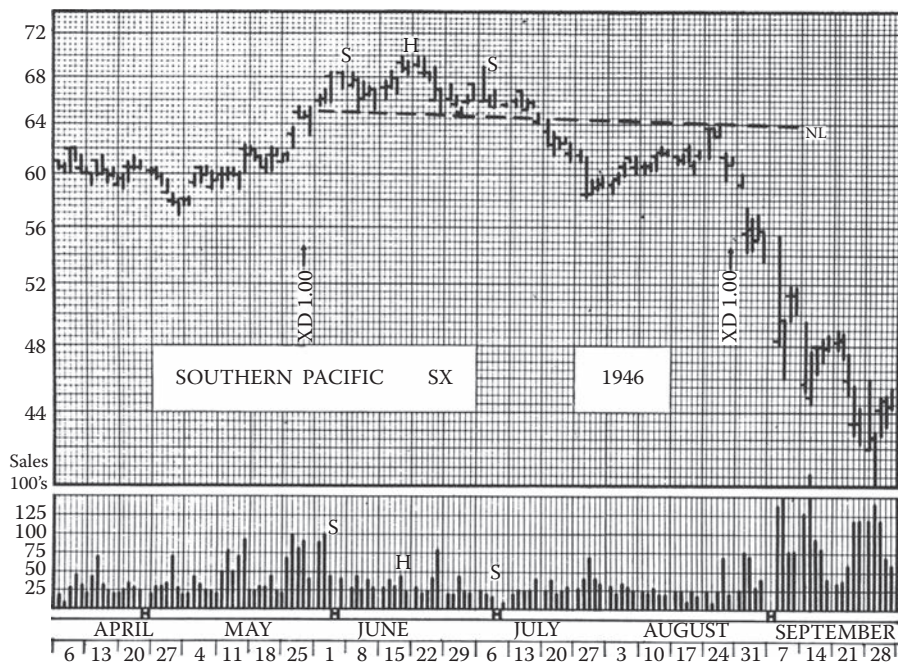


Figure 33.1 Head-and-Shoulders Top. The Bull Market that carried Southern Pacific from 8 to 70 in the years 1941 through 1946 culminated in June 1946 with this formation. Notice the heavy volume on the left shoulder, lower volume on the head, and small volume on the right shoulder. The breakout signal, which was decisive on July 15, served notice on holders of long commitments to sell at the market the next day (at about 63) instead of waiting for the protective stop, which would have been set at 61, to be caught. Volume eventually developed at the Bottom of the breakout move at about 58 1/2, which move, incidentally, carried out the minimum measure of the Head-and-Shoulders prediction.

From this point, however, a weak rally on low volume started and continued up for four weeks. The weakness of this picture would justify a short sale on a rally of 40% to 50% of the move from the left shoulder to the bottom or on a return to the neckline, say, at 63. The rally actually extended to the neckline at 64, broke away on a gap with volume, and continued down in a move that led, in the next three months, to prices below 40, and later even lower.

An extraordinary feature of Head-and-Shoulders Tops is the frequency with which a comparatively small formation, such as the one shown here, will herald a Major Move, changing the course of the stock for months or even years to come. Not all patterns of this type will lead to such big moves as this, but no Head-and-Shoulders should be regarded lightly, ever.

be such a bad idea. The implementation of such a plan in Magee's time would have been extremely cumbersome and expensive, but it is eminently practicable in modern markets.)

The important implications of which we spoke are these: if the record of the Averages shows on these Major Signals it is possible to take substantial theoretical profits over the long term, and if the Averages are composed of the prices of individual stocks, then the probabilities favor buying or selling a majority of stocks in line with the Major Trend of the Averages. The evidence shows Major Trends normally continue for months or years. The line of "most probable gain," therefore, is the line of the Major Trend.

On this basis, we would be on safe ground to say when a trend of sufficient importance gives a Major Signal, the Averages are under way and there will be a greater likelihood of finding profitable situations among individual stocks moving in that trend than among those moving in the reverse trend.

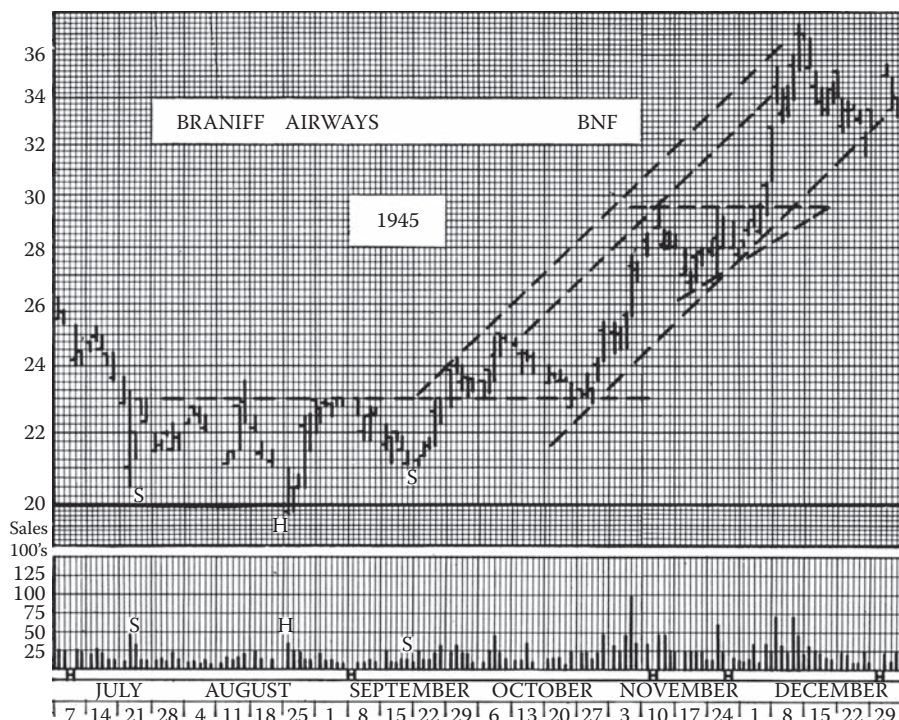


Figure 33.2 Head-and-Shoulders (or Kilroy) Bottom in Braniff Airways, 1945. Strictly speaking, a Continuation Head-and-Shoulders after a Secondary Correction in the Bull Market. A Major Bottom, reversing a long Bear Market, would normally take much longer to form.

Here we see heavy volume on the left shoulder, somewhat less on the head, and very little on the right shoulder, with a sharp increase, as required, on the breakout move of September 21. The breakout was followed by a Throwback to the neckline on diminishing volume, providing a good opportunity for purchases at 23. The upward move was resumed, and again there was a reaction to the neckline Support. A second reaction of this sort is not unusual. The closing at 22 3/4 on October 19, below the previous Minor Bottom, and on increased volume, was mildly disturbing. But in view of the strength of the pattern and breakout, we would not have sold the stock, and the protective stop at 21 7/8 was not even threatened. On October 25, the advance was resumed with a Breakaway Gap and continued up to 29 1/2, where the move was signed off with a One-Day Reversal and Exhaustion Gap.

Notice on reaching 29 1/2, "BNF" went into a Consolidation Pattern for more than three weeks, making an Ascending Triangle, before leaping to 37 1/2. Notice also (we might as well get all we can out of these examples) the Ascending Triangle takes shape at approximately the halfway point of the whole advance. We are already familiar with this tendency of stocks in fast moves to form "halfway" patterns.

It is suggested you read this preceding paragraph again, carefully. It means we do not try to sell stocks "at the Top" in a Bull Market. We do not try to "pick up bargains at the Bottom" in a Bear Market. We do not deliberately buck the kind of trend that history shows is likely to continue for an undetermined and possibly long time.

What we have said here is stated with a little different emphasis than in previous editions of this book. You will notice we have not said you will never sell a stock short during a Major Bull Market or buy a stock in a Bear Market. There will be, and often are, cases of stocks moving against the Major Trend and, on the basis of their individual technical behavior, may justify a commitment against the trend of the Averages.

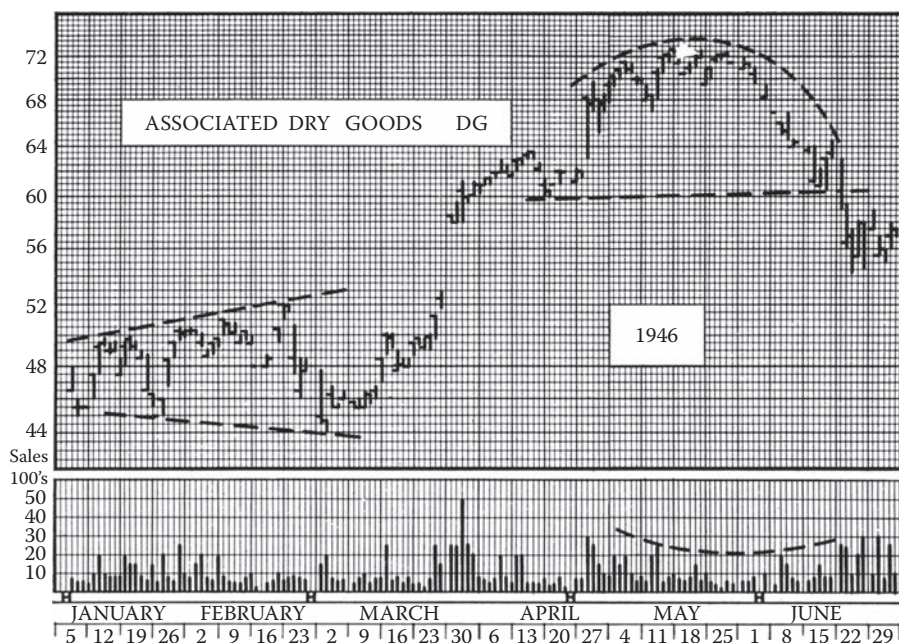


Figure 33.3 Associated Dry Goods winds up its Bull Market Trend with a Rounding Top. This is a daily chart for the first six months of 1946.

The advance in “DG” from 4 to above 72 in just 3 1/2 years, when seen on monthly charts, is a smooth, accelerating curve that emerged from a long Bottom Formation that had lasted five years from 1938 through 1942.

As we enter the final six months leading up to the ultimate peak, note first the action during January and February. “DG” had just completed a fast run-up in the last quarter of 1945 and was about due for a Consolidation or a Secondary Correction. On reaching 48, it turned back to 45, advanced to 50 1/2, to 51, and finally to 52, and then reacted to 44 at the end of February. Had the move on January 22 gone a little lower and closed below the January 3 low, followed by an even lower closing on February 26, we would have had to consider this January–February pattern a completed Broadening Top, a definite Reversal signal. However, the pattern was not perfect, and, therefore, not valid, but the erratic price action shows incipient weakness.

It is not unusual in these last stages, when public participation is running high, for the climactic advances to be spectacular and fast; that is what we see here. A five-point Breakaway Gap occurred on March 25, followed by an advance that petered off at 63 1/2 reacted, and then ran up to more than 68.

From here on the move advanced slowly with suggestions of a Convergent Trend and a succession of “heads” and “shoulders,” and volume dropped off as the Top was reached. The drop on June 4 to below the May 7 Minor Bottom on increased volume would complete the Rounding Top and call for immediate sale if we were still long; and the penetration of the “neckline” on June 18 was a conclusive break.

We feel such trades should be made cautiously and with a full realization the majority of stocks are moving in a contrary manner. Such trades might be made, for example, in particular cases as indicated by the charts of the stocks involved, as partial hedges to reduce overall risk. For example, if a Bull Market had persisted for several years and was still presumably in effect, but certain stocks had broken badly and showed individual weakness, a trader might continue to hold three-quarters of his capital in good long positions but might make a limited number of short sales in the weaker stocks. If, then, the

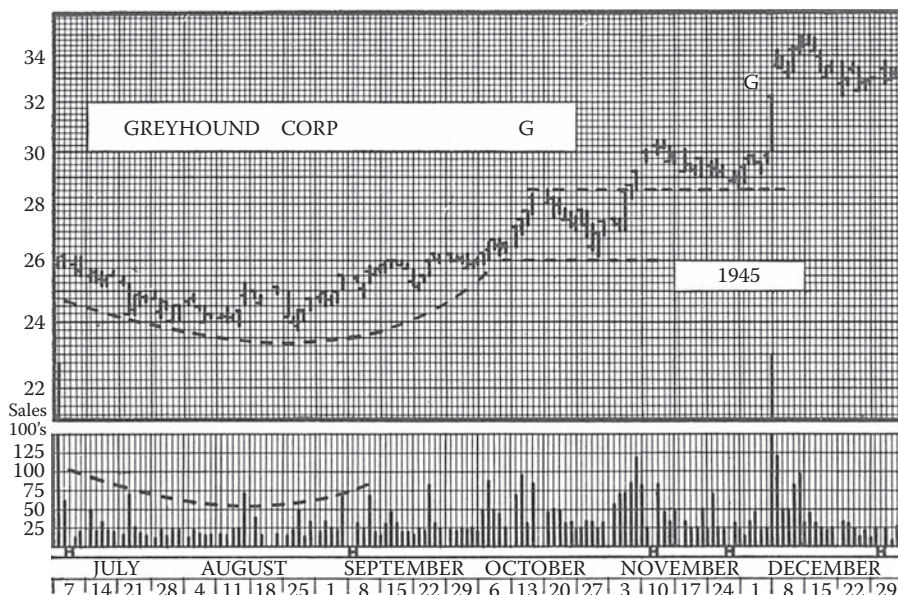


Figure 33.4 Greyhound: a Rounding Bottom in 1945. A Continuation Pattern after the May run-up to more than 29 and reaction to Support at 24, the 1944 high.

In July, volume ran fairly high on downside days, drying up as we entered August. August 10 showed a spurt of volume on the upside, and then more dullness.

The various small moves through August and September would not give us any basis for trading operations. The move to a new high in the pattern on August 31 suggested an upturn, and again on September 19–20, we see another little push up to the 26 level—still not conclusive, however.

The move that got under way in the week ending October 13 is more definite. This decisive move with good volume carries right out of the “Bowl” in an almost vertical ascent; not a big move, but a clear indication of the probable trend. We would look for a point to buy “G” on a correction of 40–50% of the entire move up from the Bottom, or on a return to near the Support Level around 26. The purchase would probably be made around 26 1/2. Notice the drying up of volume on this reaction.

The advance from here to 30, marking an entirely new Bull Market high, came almost immediately. On November 3, with very heavy volume for a Saturday, “G” closed at 30; since this volume was not on the day of breakout, we would have closed out the transaction on a tight stop at 29 7/8 on Monday (unless we had elected to wait out the next Minor Reaction for a further advance).

Two weeks later, on the basis of the reaction to good Support, we would have bought “G” again at about 29 (you cannot figure on getting the extreme low price on any reaction). The following advance carried up to 34 1/4 in two days. At that point, profits could have been taken or the stock held for the longer term. “G,” it might be noted, continued up eventually to 54.

Bull Market continued, he might eventually have to close out the shorts for losses, which could be regarded as the reasonable cost of “insurance.” On the other hand, if the general weakness became greater and eventually reversed the Major Trend, then the short sales would cushion the depreciation of the longs up to the time of the Reversal signal. (*EN9: An extremely wise observation the present editor has developed at greater length in the theory of “natural hedging.” Given the complexity of modern markets, profits may be made on both sides of the hedge, and this should be the objective.*)

By using an Evaluative Index (see [Chapter 38](#)) instead of, or in addition to, the Averages, it is possible to say, “The market appears to be about 60% Bullish,” or “55% Bullish,” instead of merely Bullish or Bearish. This takes account of the fact that some markets are more

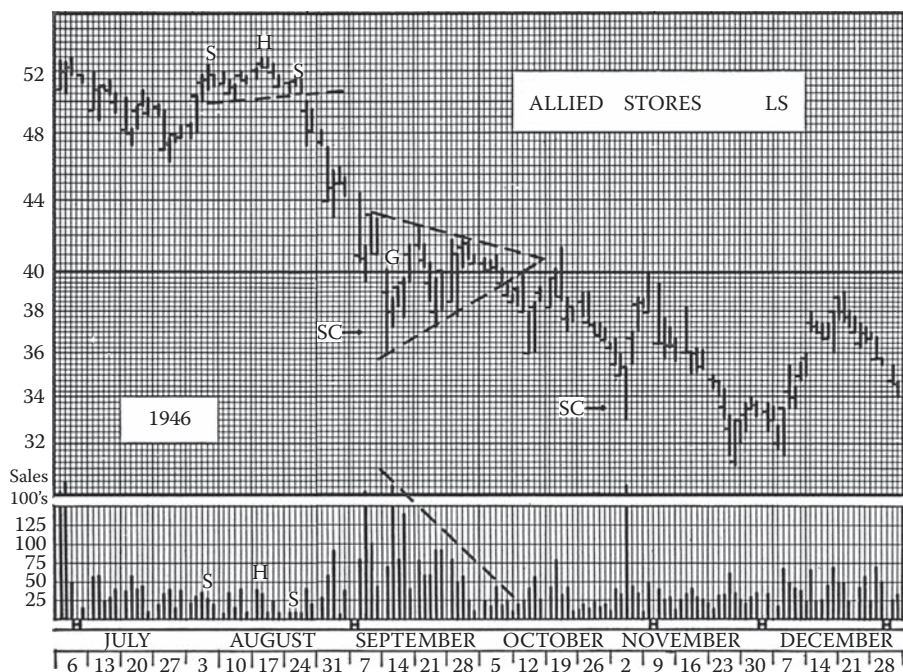


Figure 33.5 Symmetrical Triangle in Allied Stores, a Consolidation in the 1946 decline. Notice heavy volume as “LS” crashed to the first Reversal point of the pattern on September 10, and the drying up of volume during the successive swings of the Triangle. In Point-and-Figure charts, this type of pattern is known as a Pendulum Swing because it does seem to come to rest like a pendulum. Often, volume will pick up somewhat at each Reversal point, but a valid Triangle must show some overall decrease of volume.

If, by some unhappy chance, you were then long “LS,” you should have had your protective stop at 33 1/8, 8% below the Bottom reached at 36. However, the move down out of the Triangle on Friday and Saturday, October 4 and 5, although on slight volume, was a true breakout (remember that *downside* breakouts do not require volume confirmation), and you would have been justified in selling your long commitment at the market on Monday. You would have received about 38 1/2. To justify a *short sale*, however, the breakout would have had to close at least 3% outside the Triangle. The return to the border of the pattern at 40 was interesting, and you will notice volume increased characteristically as the decline really got under way on October 9 and 10.

No question about the validity of this breakout. Short sales were in order on a return to the border of the Triangle, or a 40–50% Correction of the breakout move, say, at 38 1/2 to 39. The rally carried to the apex of the Triangle and then broke away fast for the decline to 33, where, on October 30, a Selling Climax and One-Day Reversal occurred—a signal to take profits.

Notice the small Head-and-Shoulders in August. This was a Continuation Pattern marking the top of the rally before the September–November crack-up.

Bullish or more Bearish than others, and it enables the investor to “roll with the punch” instead of having to take an all-out position one way or the other. (EN9: *I have called this “Rhythmic Trading.”*)

It should be noted, however, while he may take such a partial position against the (presumed) Major Trend, he will continue to use the bulk of his capital in situations that accord with the main trend. He will never risk the larger part of his assets in opposition to the trend, and he will make any countermoves with a clear understanding they are of the nature of insurance and serve this purpose even though they ultimately may be closed out as small losses.

Summarizing all these implications of the Dow Theory: do not make a majority of your commitments against the Major Trend. During periods of potential Reversal, gradually reduce your long holdings, and make short sales to a limited amount in weak stocks; but do not attempt to anticipate either a Major Top or Major Bottom in the Averages by making an all-out commitment counter to the main trend.

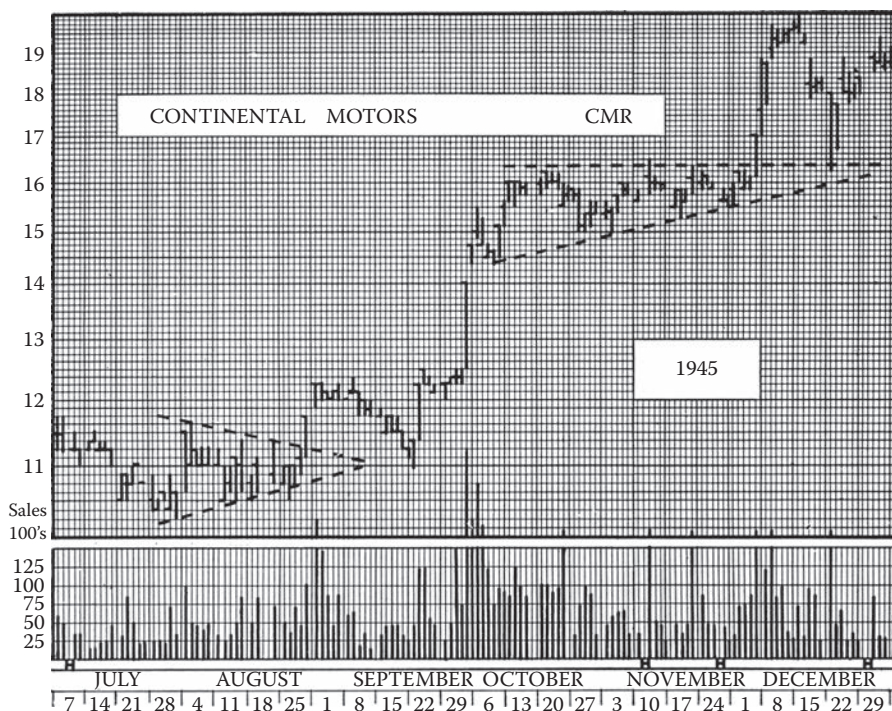


Figure 33.6 An Ascending Triangle. "CMR," after emerging from the doldrums in 1943, forged up to about 12 early in 1945. The first eight months of the year on a monthly chart showed an Ascending Triangle with Top at 12 1/4. On daily charts, however, we see the more detailed aspects of this large pattern. For instance, the final reaction of the whole (monthly) formation in August became here a Symmetrical Triangle. The breakout from this pattern carried out the minimum measuring requirements, bringing the price again to the 12 1/4 Top, from which point there was a reaction that was stopped cold at 11, the apex of the Triangle. A purchase on the reaction after the powerful breakout from the Triangle, say around 11 1/2, would have been closed out on progressive stops, starting September 28 when "CMR" reached 14, the sale being consummated October 2 at 14 1/2, a highly profitable move.

Profit-taking of this sort would largely explain the stopping of the rise and the formation of a Consolidation Pattern that turned out to be the Ascending Triangle with Top at 16 1/4, lasting eight weeks. Notice the November 7 volume when price went through the 16 1/4 level, but failed to close outside the pattern, and the volume on November 30 when a clean, decisive breakout move closed at 17. This move ran to 20, and purchases would have been made at 18 or less on the reaction. The next wave took "CMR" to its ultimate Bull Market Top at 24 in January. On the ratio scale, the Top of the Ascending Triangle was exactly halfway between the September Bottom at 11, and the extreme high of 24. This type of halfway consolidation is typical of Flags and Pennants, and this is a very similar case.

Head-and-Shoulders Top

- A. If you are long a stock, should a breakout down through the neckline occur, with a closing at least 3% below the neckline, next morning place a stop 1/8 point below the last close. Continue to place such "tight stops" if not caught the first day, 1/8 point under each day's close until one is caught.
- B. Short sales may be made after a breakout, on a recovery of 40% of the distance from the top of the right shoulder to the bottom of the breakout move, or on a recovery to a line drawn down across the top of the head and right shoulder, or on a Pullback to

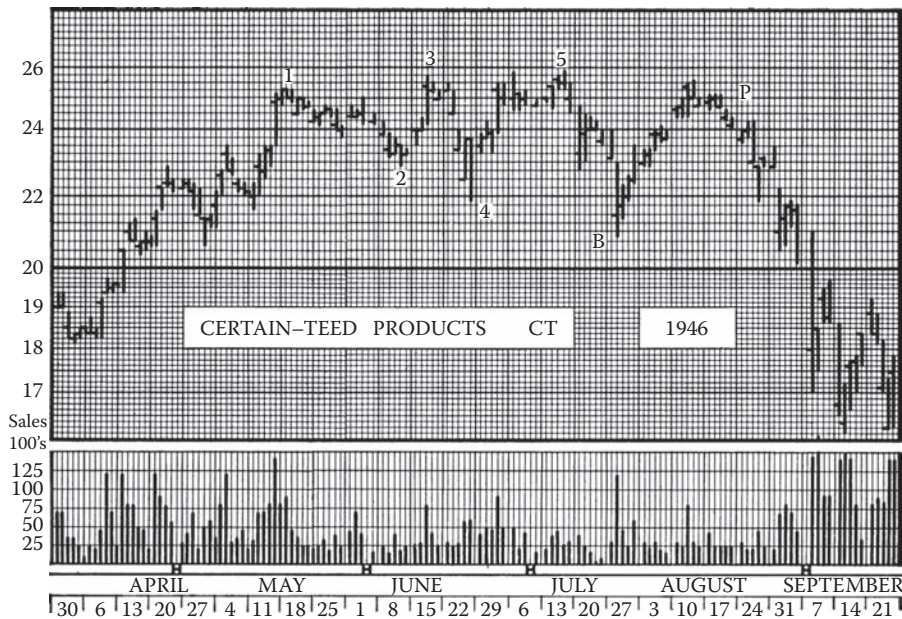


Figure 33.7 A Broadening Top. This somewhat rare but beautiful and highly dependable formation developed as CertainTeed made its Bull Market Peak in 1946. A quick glance at the volume scale in this daily chart shows the high volume on the final stages of the advance, the dullness during the development of the Top Pattern, and the increased volume after the breakout.

As we all know by now (or go back to [Chapter 10](#) and review the specifications), a Broadening Top is a Five-Point Reversal, differing from the Head-and-Shoulders, Triangles, Rectangles, and so on, in that each Reversal must be at a new high or low for the pattern. It is, if you wish, a sort of reversed Triangle with its apex to the left, the swings becoming continually wider.

In the second week of May, "CT" (the symbol has since been changed to "CRT") made a new Bull Market high at 25 1/4 (marked "1"). The reaction carried back to Support at the previous Minor Peak (point "2") and the following week, "CT" advanced to another new high at 3, closing 1/8 point above the previous Top.

Another week had brought "CT" down to point "4" with a closing at 22 1/2, three-quarters of a point below point "2." This, in itself, is not sufficient reason for making short commitments. Three weeks later, "CT" closed at 25 5/8, another new high, at point "5." Finally, the stock dropped to 21 1/2 on July 23, and at this point (marked "B"), the pattern was completed. Notice the tendency of volume to rise at each Reversal point of the pattern.

Long holdings would be sold at the market the day after the breakout, but short sellers should wait for a correction of 40–50% of the move from point "5" to point "B." If shorts were put out at 23, we would not worry if the stock advanced for a time, as it did, without making a new high. The downside move in "CT" went quickly to 15 1/2, and within 12 months to 11 1/2.

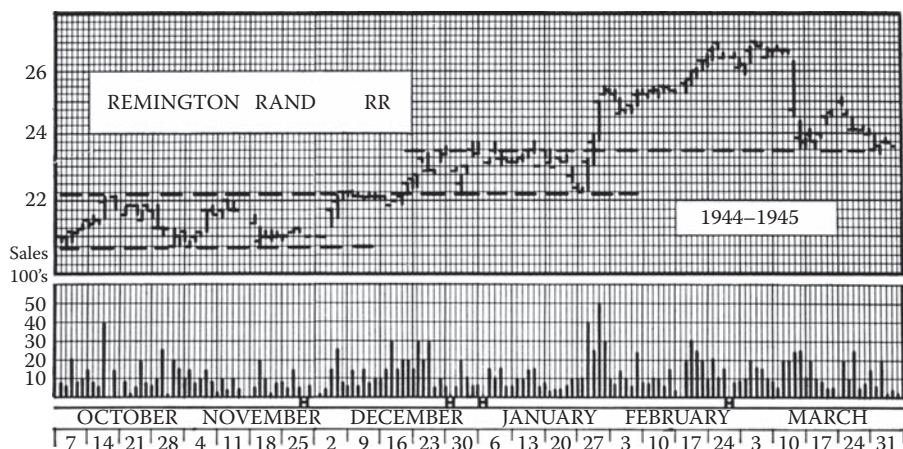


Figure 33.8 Rectangles in Remington Rand. This is part of a long Bull Market rise that carried “RR” from under 10 to above 50 in the period from 1942 to 1946. The last three years of this advance were almost continuous, as seen on monthly charts, without any extensive reactions. When we put the chart on a daily basis, such as this section covering the end of 1944 and the early months of 1945, right in the middle of the advance, we see that the rise was not actually continuous but rather was built up of steps in an ascending “staircase” of Accumulation Patterns. Each sharp advance on increased volume is followed by a period of dullness and slight recession.

A picture of this type suggests the methodical campaign of buyers who intended to purchase large blocks of the stock for large long-term advances without creating a “skyrocket” market by their own buying operations. Presumably, each advance was checked by the temporary distribution of part of the stock held by such buyers, and accumulation restarted on reactions.

In October and November, there is a well-marked Rectangle between $20\frac{3}{4}$ and 22. A purchase could have been made at or near the bottom limit, say at 21, on the fifth Reversal on November 14. The move out of pattern in the week of December 2 did not carry 3% out of pattern, but about two weeks later, a move got under way that qualified as a valid breakout, with volume confirmation as required on upside moves. Notice the volume increase and One-Day Reversal on December 20 as this move neared its Top. Purchases would have been made at about $22\frac{1}{2}$ on the basis of a normal correction, and you would have expected Support at the 22 level. This Support was respected, but the move did not advance beyond $23\frac{3}{4}$ (made this same Top three times in a period of two weeks) and returned again to $22\frac{1}{4}$.

There was no question about the breakout on January 25. Extent and volume were decisive. Notice the gap and One-Day Reversal on the following day as this Minor Move reached its end.

In mid-March, as you will see, “RR” plunged down from its high of 27, but the decline was stopped in its tracks at the top level of the January Rectangle, a good Support shelf. Never again during the Bull Market did “RR” even threaten this level because it moved up in April and continued its long march to the 1946 Top.

the neckline, whichever point is reached first. If the breakout move continues down another day, or for several days, the 40% recovery would be based on the entire move from the top of the right shoulder to the lowest point reached.

Head-and-Shoulders Bottom

(EN: The editor, long distressed by the paradox of the term “Head-and-Shoulders Bottom,” proposes this formation be renamed in technician’s nomenclature to “the Kilroy Bottom” [see [Figure 74.](#)])

- A. If you are short a stock, should a breakout on increased volume occur, penetrating the neckline and closing at least 3% above it, place a stop next morning to cover at 1/8 point higher than the close. If such a stop is not caught, continue each day to place a stop 1/8 point higher than the previous day's close until one is caught.
- B. New purchases may be made after a breakout, on a reaction of 40% of the distance from the bottom of the right shoulder to the top of the breakout move (which reaction must be on decreasing volume), or on a reaction to a line drawn across the bottom of the head and the right shoulder, or on a Throwback to the neckline, whichever is reached first. As in the case of the Top Formation, this 40% reaction is figured on the entire distance of the breakout move if it should continue up for several days.

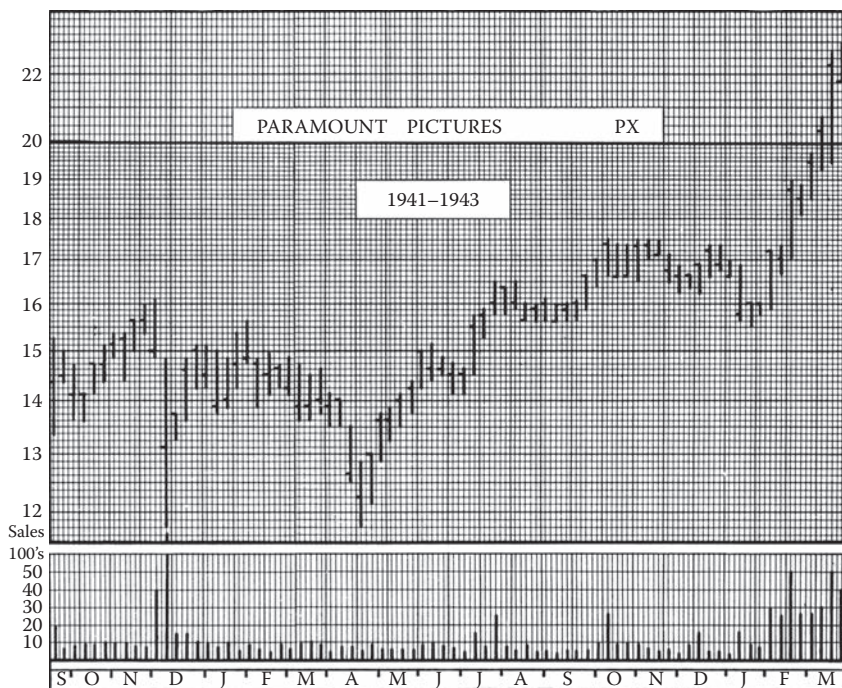


Figure 33.9 A Double Bottom in Paramount Pictures. Double Tops and Double Bottoms are not as common as many traders like to think. They require considerable time to develop and must conform to specifications as to price range and time, and also (on upside breakouts from Double Bottoms) as to volume. They are easier to spot on weekly charts than on dailies.

This is a weekly chart of "PX" from September 1941 through March 1943. A Bottom was made on climactic volume at 11 3/4 during the "Pearl Harbor Panic" Move. Then came a rise lasting eight weeks that brought "PX" back to 15 5/8—a rise, incidentally, on feeble volume, strongly suggesting the possibility of another crack-up to even lower levels. This rise, you will notice, was a considerable one, amounting to 35% of the price at the December low.

The downward move, however, which lasted to mid-April, was on low volume and ended precisely at the December low of 11 3/4. (Note: it is not necessary moves of this sort end at exactly the same level; the second Bottom could have been a bit higher or lower without spoiling the pattern.)

The second week in July shows the first sign of a possible Reversal when the price advanced on increased volume, but it did not close above 15 5/8 and, therefore, was not a breakout. Two weeks later, on heavy volume, "PX" had moved up to 16 1/2, closing the week at 16. This is a true breakout and purchases would have been in order on reactions from this point on.

The move continued up for three years to an ultimate Top at 85.

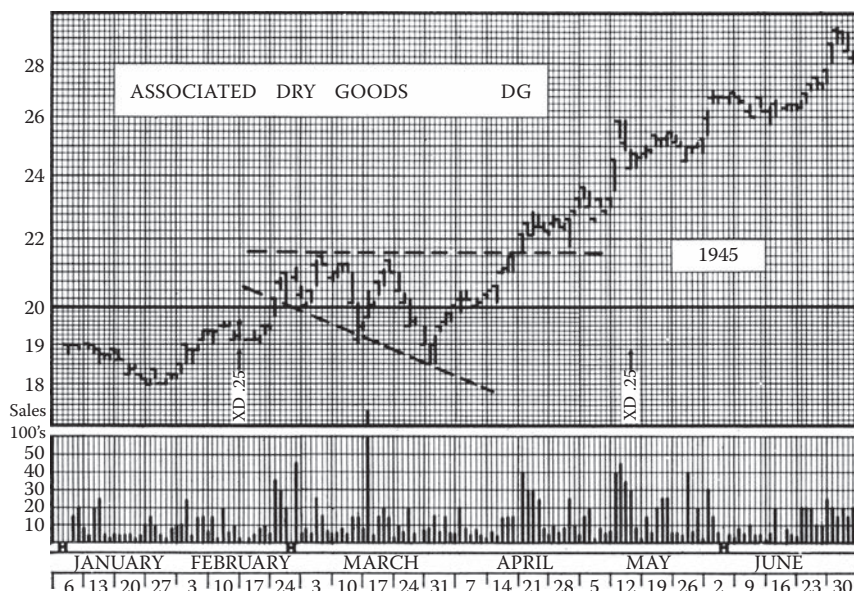


Figure 33.10 A Right-Angled Broadening Formation in Associated Dry Goods. A beautiful example of a breakout through Multiple Tops, followed by an important move. This is, however, a pattern that is more fun to observe in retrospect than to follow as an active trader. The stock had moved up from an important Bottom around 4, established in 1938, 1940, and 1942. At the time of this chart in 1945, “DG” was starting the accelerating climb that eventually ended with the 1946 Rounding Top at more than 70 (see [Figure 33.3](#)).

If you had been holding the stock, you would have been watching for a substantial corrective move after the advance from 12 to 20. In late February and the first week of March, “DG” went into a new Bull Market high-ground, reacted to Support around 19 to 19 1/2, and then advanced again in the week of March 17, failing in this move to make a new high. Ten days later, “DG” had reacted to 18 1/2, closing below the previous Minor Bottom. An inexperienced observer, at this point, might have commented “Double Top” and planned to sell “DG” at once or even to make a short sale. The pattern, however, was not large enough in duration or extent of price movement to qualify as a Double Top, nor did it conform to any other recognizable pattern of Reversal. Nor was the volume as high as one would expect on an important Top.

The rally in early April carried through to a decisive breakout of more than 3% in the move that reached 22 7/8 on April 18. This move was a near penetration of the middle Top and confirmed the uptrend. If you still held your long stock, you would not rest easier, and in any case, you would have looked for a chance to buy on a reaction after the breakout. If you had tried to buy at the 21 1/2 Support Level, you would have been left behind, but if you had put your order in a little higher, say at 22, you would have had a nice profit on the advance to 25 7/8, where you would have sold on a tight stop at 25 3/4.

Complex or multiple Head-and-Shoulders

The same tactical suggestions apply to these as to the simple Head-and-Shoulders. Definitions and special features of these formations are covered in [Chapter 7](#).

Rounding Tops and Bottoms

It is difficult to set precise rules for trading on these gradual changes of trend. In the case of Rounding Tops, if one is long the stock, the general appearance of a Rounding Formation,

extending over a period of several weeks, leveling off from the rise and then turning down, very likely with a tapering off of volume nearing the top of the rise and a pick-up of volume as the turn starts down, would suggest getting out of the stock at the market as soon as the picture looks more or less definite. A short sale of a Rounding Top could be very profitable; but no exact rule could be stated except, in the absence of fixed Basing Points, one would want to be very certain the formation was unmistakably a Rounding Top. It would need to be well formed and following a long rise and extending over a period of some weeks in its formation. It would also need to be protected with a stop above the Top of the curve, as explained in the chapter on stops.

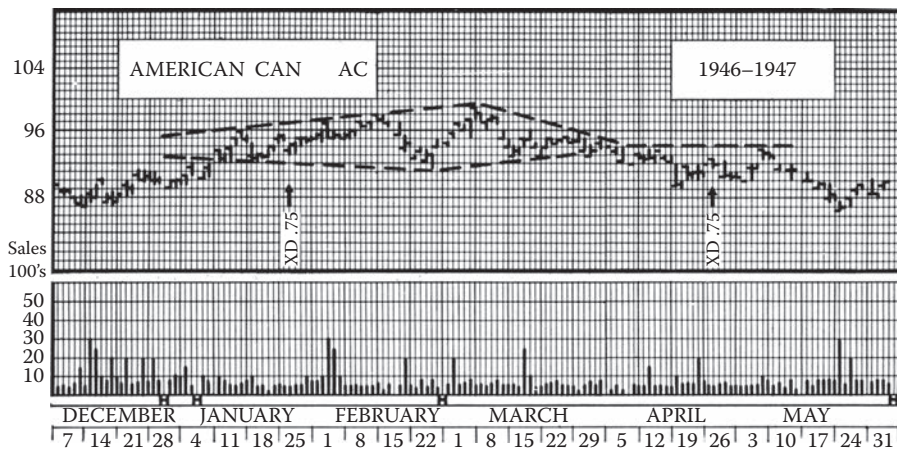


Figure 33.11 A Diamond Pattern in American Can. The daily chart covers the period from December 3, 1946, through May 1947, inclusive. For background on this situation, keep in mind that “AC” made its Bull Market Peak in October 1945 when it reached 112. The tendency of high-grade, high-priced stocks to top out early at the end of a Bull Market has already been noted. The first decline carried nearly to 90 and was followed by a rally to 106. The stock then dropped to below 80 and a second rally brought us to the situation we see here.

You will notice at once the moves have a gradual “rounding” appearance, due to the fact, at this price, conservative stocks do not make large percentage moves. If charted on a scale having larger vertical intervals, the patterns would look very much like those in more speculative stocks.

The first part of the pattern is similar to a Broadening Top. The first Minor Peak at 96 is followed by a reaction to 92. The second peak carries even higher, to 98; and the reaction this time goes down to 91 1/4. A third rally takes “AC” to 99. So far, we have the five Reversal points of a Broadening Top, needing only a close below 91 1/4 to confirm the Bearish indications. The next decline fails to break out of the pattern, however, and for several weeks, we have a *narrowing* picture like a Symmetrical Triangle.

Eventually, the stock makes a clean breakout to 89, which is the signal to get out of longs and to consider short sales on the next rally. As a matter of fact, the three-week rally that started never made an upside penetration of the Resistance Level at 94, the level of the apex of the converging lines bounding the latter part of the Diamond.

American Can did not make a spectacular move down from this point, which is not surprising considering the markdown that had already taken place in “AC,” the habits and price of the stock, and the general condition of the market. It did not, however, again rise to the level shown here and, in fact, retreated to the 80 level.

To review the nature of the Diamond—it is not a common pattern. It is somewhat like a Complex Head-and-Shoulders with a bent neckline. It resembles, at the start, a Broadening Top, and its latter phase narrows like a Symmetrical Triangle.

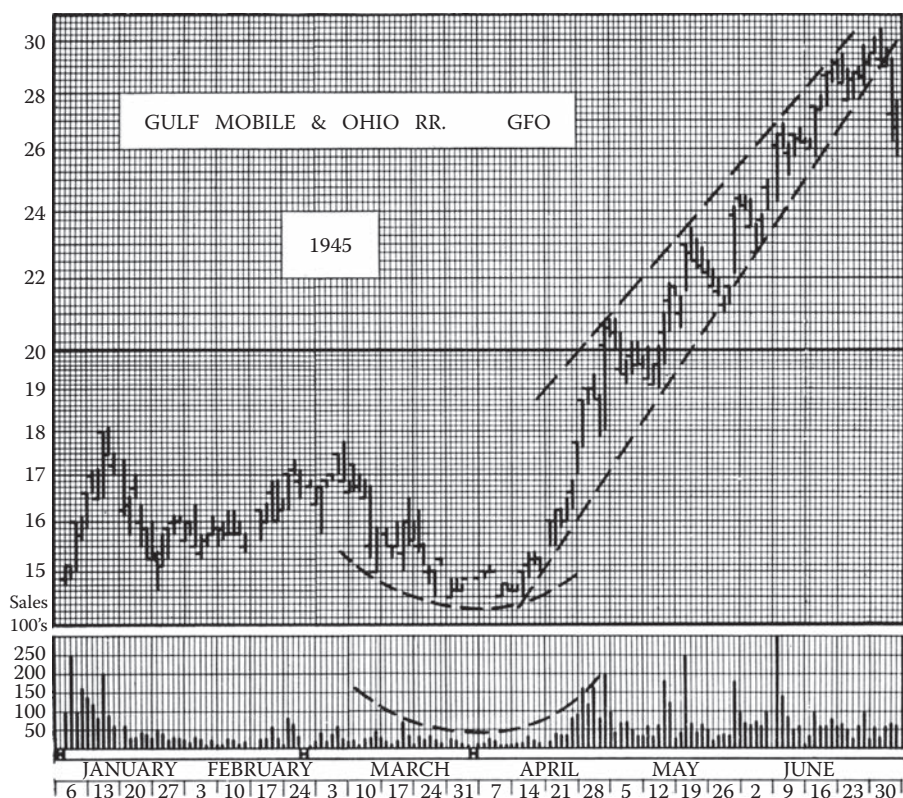


Figure 33.12 Gulf, Mobile, and Ohio builds a beautiful Wedge, as shown on this daily chart for the first half of 1945. This was the move that terminated the spectacular rise of “GFO,” its final Bull Market Top.

Immediately after the downside breakdown from the Wedge, “GFO” came down to 18 $\frac{3}{4}$, and from this Intermediate low, which was reached in August, rallied into a long Rectangle between 23 $\frac{3}{4}$ and 26 $\frac{3}{4}$ from which it eventually broke down in a series of crashes that found it, in May 1947, selling for 6 $\frac{1}{8}$!

It is rather hard, with a formation of this sort, to say at what precise point the convergence of the trends is established. The breakout move late in April was normal; the stock was a buy on the next reaction. The following advance in May, which reached 23 $\frac{1}{2}$, did not carry out a Parallel Trend Channel, and we saw a tendency to converge as prices retreated on the reaction. The next three advances all repeated and confirmed the Wedge picture, and at the top, we see a sort of “bunching up” as prices make little or no headway. The chances are at 11 an alert trader would have taken profits on long commitments after the high volume appeared at the top of the Minor Move ending June 4 and 5. In any case, he would have maintained a protective stop at all times to take him out if and when a downside breakout occurred.

You would not be likely to be short a stock on a Rounding Bottom. The long and gradual rounding appearance with dull volume, followed by a sudden revival on greatly increased volume, would be signal enough to cover if you should find yourself in this uncomfortable position. Purchases would be justified in a stock whose chart showed a Rounded Bottom or Saucer, after the first spasm of activity following a long, dull period of dormancy. You would buy, according to the rules we have given for purchases on reactions, not on the breakout, but on the reaction following it, which would almost surely come.

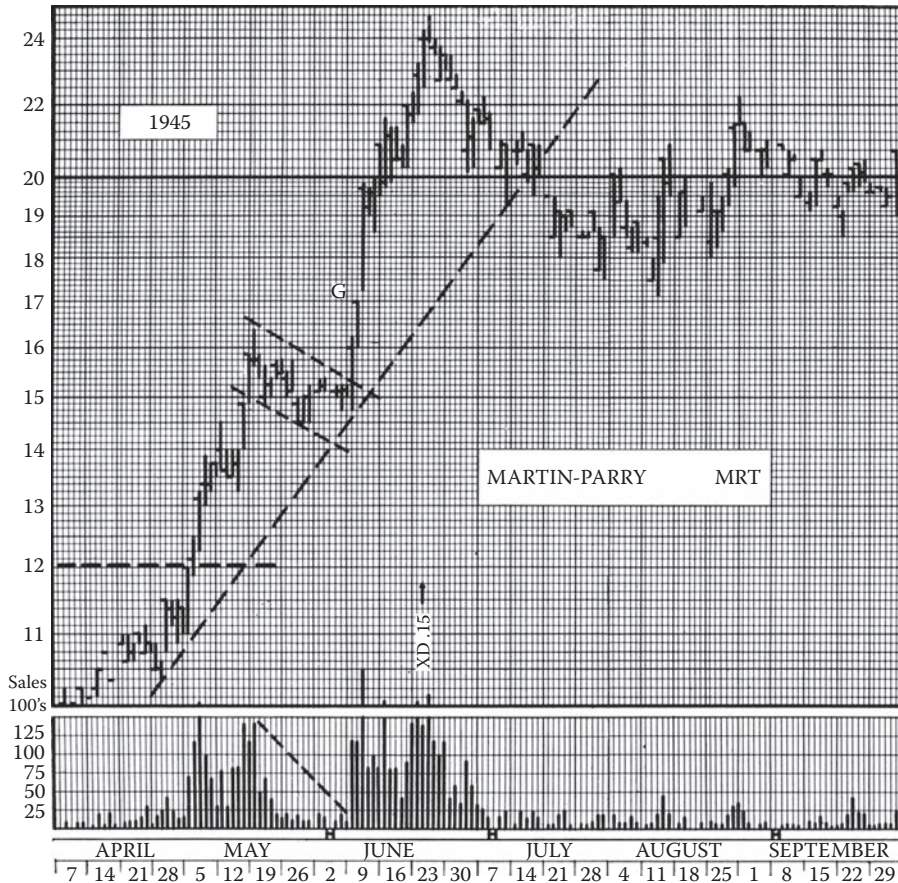


Figure 33.13 A Pennant in Martin-Parry. This type of pattern is fairly common in fast-moving markets. The extraordinary point about Flags and Pennants (and sometimes other Consolidation Patterns in fast moves) is their tendency to form almost exactly halfway between Bottom and Top.

Just before this move, “MRT” had built a Rectangle between 10 and 12 lasting seven months, which followed the 1944 rise from around 4 to 12. The May breakout on heavy volume carried “MRT” right to the top of the Pennant without any adequate reaction. Note the increase of volume at the top of that rise. For three weeks prices drifted off with a drying up of volume that is clearly shown in the chart. The pattern did not correct the entire first phase but found Support at the Minor Peak at 14 1/2.

Suddenly, on high volume, the move was resumed and this time went right up to 24 3/4. The chances are traders who were still long their original stock or who had bought in around 15 on the Pennant would have sold after the high volume of June 6 when “MRT” reached 19 7/8.

Symmetrical Triangles

- A. *If you already have a position in the stock.* During the formation of a Symmetrical Triangle, you may be unable to make any change in your holdings. Let us say you have bought the stock on a reaction after a Bullish Move. The next upsurge fails to make a new high and gives no sufficient volume signal to cause you to sell out. The next reaction fails to carry below the previous one. You are “locked” into the Triangle, and you cannot safely sell, because the Triangle that has formed may eventually break out in the original direction and show you a good profit (in fact, the odds favor that it will break

out in that direction). In case of a breakout move (which must be on increased volume on the upside), you can close it out for a profit (according to the rules for trading we have already given) and immediately mark it as a rebuy on the next reaction. If the breakout is down (whether or not on increased volume), with a closing outside the Triangle, you should protect yourself with a tight (1/8 point) stop the next day and continue to set such tight progressive stops under each day's close until it is sold.

If you are short the stock, the same rules would apply in reverse, except the breakout in the right direction (down) would require no volume confirmation while the adverse breakout (up) would need such increased volume.

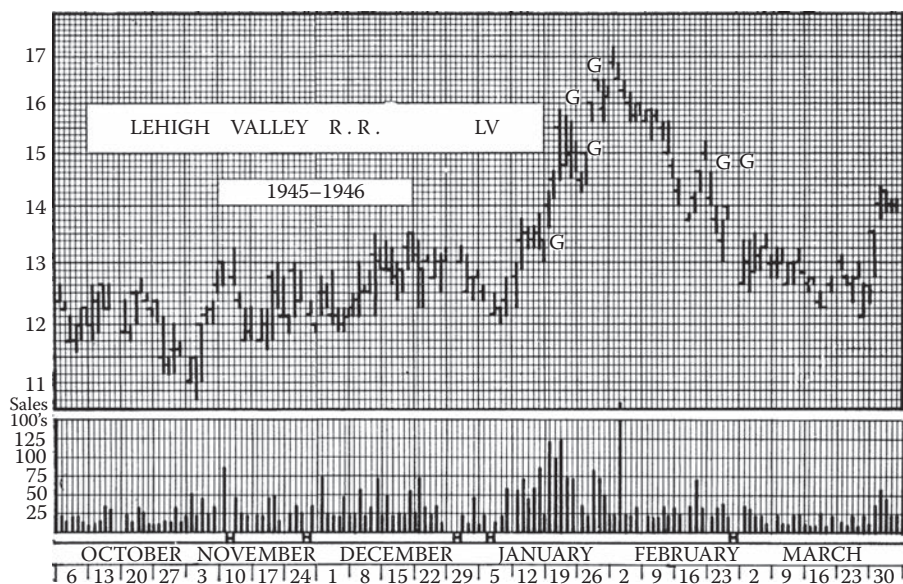


Figure 33.14 This daily chart of Lehigh Valley R.R. through late 1945 and early 1946 shows a variety of gaps. At this particular time, "LV" was completing a Secondary Corrective Move before making one more (and as it turned out, final) effort to exceed the 1945 Top just above 17. This long-term situation could be used for a discussion of Double Tops because the Bottom of the intervening move was violated in the summer of 1946 and the stock continued a downward course to below the 5 level.

Not all gaps are significant, as displayed in the first gap on October 3, when the stock was moving in a narrow range on low volume. The gap on Saturday, November 3, however, is important because the Saturday volume (when doubled) is high. The move failed to qualify by a 3% new high closing as a true breakout, but the implications of the move were Bullish and might well have justified purchases on Minor Reactions. The low-volume gaps on these reactions were of no particular interest.

It is not until the third week of January that we see another gap that looks like a real breakaway. On January 14, with high volume, "LV" moved up and out in a rush that took it to 15 7/8 on January 16, closing at 15 1/2. The second appearance of volume here would have suggested application of progressive stops, and long trades would have been closed out at 15 3/8.

New purchases could have been made on the reaction at 14 1/2. A second advance accompanied by a Breakaway Gap developed on January 23. If we consider the second gap (of January 24) a Runaway or Measuring Gap, we would estimate the probable top of this move at around 17 3/4. When a third gap appeared on January 28 with a One-Day Reversal and climactic volume, it would be clear this move was about finished and progressive stops would be used to clear out longs at 16 3/4.

Note the attempt to rally after the sharp drop and the One-Day Island formed by two gaps as "LV" fails to hold at the 15 level.

- B. *If you do not have a position in the stock.* Stay away from any stocks making Symmetrical Triangles until a clear and definite breakout close has been made. After such a breakout, if on the upside, buy on the next reaction if the Major Trend is up; on the downside, sell short on the next rally if the Major Trend is down. Rules for making such commitments have already been given.

Note: Avoid breakouts from Symmetrical Triangles of the type that have continued to narrow until the breakout point comes far out toward the apex. The most reliable breakouts occur about two-thirds along the Triangle.

Right-Angle Triangles

The same rules would apply to Right-Angle Triangles as to Symmetrical Triangles (see [Chapter 8](#), Important reversal patterns: the triangles). Early breakouts are more dependable here, as in the case of Symmetrical Triangles. Volume confirmation is more important on upside breakouts from Ascending Triangles and is not strictly required on downside breakouts from Descending Triangles. Commitments already made are retained until the breakout and then closed out in the same way as any transaction that shows a gain.

As the Ascending and Descending Triangles carry a directional forecasting implication that the Symmetrical Triangles do not have, it is possible to make new commitments on reactions within an Ascending Triangle or rallies within a Descending one. Since the flat horizontal side of one of these Triangles represents a supply or demand area of unknown magnitude, and because such a Triangle can be (and sometimes is) turned back before the horizontal line has been decisively penetrated, it might be better policy to note such formations in the making and wait until the decisive breakout before making the new commitment.

Broadening Tops

Presumably, you would not be long a Broadening Top. The early Reversals in the pattern would have taken you out of the stock, if you follow the tactical rules based on trendlines, as previously outlined, long before completion of the pattern. Neither would you be tempted to buy into such a pattern because the trend indications would be clearly against a move.

On the other hand, a Broadening Top, after its completion, offers excellent opportunities for a short sale. After downside penetration and a close below the fourth point of Reversal in the pattern, you are justified in selling short on a rally of about 40% of the distance covered from the extreme top (fifth point of Reversal) and the lowest point reached on the breakout move. The stop would be placed at the proper distance above the fifth Reversal, that is, the extreme top of the pattern.

Rectangles

- A. *If you already have a commitment in the stock.* The early moves of a Rectangle may provide no volume signals to permit you to get out. There will be no “breakout” moves during the formation of a Rectangle that will allow you to take a profit. However, as soon as the character of the Rectangle is well established (which requires at least four Reversals to set up a clear Top and Bottom), you may trade on the Tops and Bottoms—that is, sell at or near the Top, or buy at or near the bottom. For, as in the case of

Symmetrical Triangles, there is a definite presumption in such formations that they are more likely to lead to continuous moves than to Reversals, this would mean you would probably pass up your first opportunity to get out (on the fifth Reversal) and would indeed probably decide to “ride along” in the expectation of a continuation of the original move, which will be in the “right” direction for your commitment. In the case of a breakout in the right direction, you would dispose of your commitment according to the rules for trading already stated. If in the wrong direction, use the tight (1/8 point) progressive stops, the same as with the Triangles.

- B. *If you are not committed in the stock.* Trades can be made within the Rectangle on the fifth and subsequent Reversals. Due to the slight probability, the move will eventually continue in the same direction as the preceding move leading up or down to the Rectangle; thus, it might be best to wait until the sixth Reversal for new commitments, which would set your interests in the same direction as a continuation. Also, short sales can be made after any downside breakout close from a Rectangle or purchases after an upside breakout close with increased volume. Both the short sales and the long purchases would be made on the Corrective Move following the breakout.

Double Tops and Bottoms

Double and Multiple Tops or Bottoms are not valid unless they conform to the requirements for such formations. [Chapter 9](#) on these patterns should be read carefully in this context.

- A. *If you are long a stock.* On penetration and close at a price lower than the extreme Bottom of the pattern between the Multiple Tops, dispose of the stock on tight (1/8 point) progressive stops.
- B. *If you are short a stock.* On penetration of the highest point of the Inverted Bowl or rise between the Bottoms, with a close above that point, close out the short sale on tight stops.
- C. *If you are not committed in the stock.* Consider a penetration and close beyond the limit of the correction between the Tops (or Bottoms) as a signal of Reversal and make new commitments on rallies or reactions.

Right-Angled Broadening Formations

The handling of these on breakouts through the horizontal side would be similar to what has been said about Multiple Tops and Bottoms, and Right-Angle Triangles.

The Diamond

If you are sure what you have is a valid Diamond Pattern, the rules for trading will be the same as those we have already covered in connection with breakouts from Symmetrical Triangles. As in the case of such Triangles, new commitments should wait for a definite breakout. Commitments already in force would have to remain until such a breakout had occurred, either declaring a Reversal or indicating a probable continuation of the original trend.

Wedges

There is no need to set forth detailed rules for policy within a Wedge and during its formation because the general principles taken up in connection with trendlines and

Support and Resistance would take you out of such a situation at the first opportunity after the convergent nature of the pattern became clear. At the very worst, your stops (which we hope you maintain faithfully in all situations) will take you out before the consequences become serious.

Regarding new purchases (from a Falling Wedge breakout) or short sales (from a Rising Wedge), the same volume characteristics would be expected: notably increased volume on an upside breakout from a Falling Wedge and less pronounced volume action on the first stages of breakout from a Rising Wedge. New commitments, in line with the implications of the breakout, may be placed on rallies or reactions after a clear breakout closing occurs, carrying beyond the trendlines forming the Wedge.

One-Day Reversals

One-Day Reversals are not technical patterns suitable for trading in the same sense as the important Reversal and Consolidation pictures we have examined. They are mainly useful as a gauge in helping to find the precise Top or Bottom of a Minor Move to protect profits on commitments previously made. The One-Day Reversal, the Exhaustion Gap, and the day of exceptionally heavy volume following several days of movement in a Minor Trend are strong indications that the move may have run out. Any of these three signals is worth watching for; any two of them together carry more weight than one alone; and the appearance of all three carries very strong implications of a Minor (*EN: or even a Major*) Top or Bottom.

Regarding trading on movements signaled by One-Day Reversals, this type of trading would lie almost in the field of gambling, or at least trading for quick, small profits on short moves. It would not be the same kind of trading at all that we have been studying in the greater part of this book. The indications and some suggestions for trading on those one-day moves are covered in their discussion in [Chapter 10](#).

Flags and Pennants

In many cases, the total decline from a Flag in an uptrend will bring the price back to a point at which the stock may be bought according to our regular trading tactics, namely, the decline may carry down to the Basic (Red) Trendline, to the Blue Parallel, or make a 40% to 50% correction of the rising "mast" preceding the Flag. If the "mast" move is the first such move out of a level or only moderately rising trend, and if the Major Trend of the market is Bullish, we would be justified in buying at the first opportunity, which would be on the Blue Parallel. In such a case we would expect, and ordinarily get, some further reaction, but it is important to get in early because sometimes the reaction is very brief and does not meet either of the other requirements for the correction. It is most important in a situation like this that the volume drop off sharply. Volume must decrease and remain slight; any increase of volume during the formation of the Flag should be reviewed as casting suspicion on the entire pattern, except the increasing volume that characteristically attends the start of the breakout drive. This drive is usually so virile that we would be safe in placing a tight (1/8 point) stop under the close of any day during formation of a Flag or Pennant that showed notably increased volume. Hence, if the volume indicated failure of the pattern, we would be taken out at once; but if the breakout was under way, we would probably be left in because the stock would ordinarily move up then without a reaction, very often making a Breakaway Gap.

In downward movements, when the Major Trend of the market is Bearish, the same suggestions would apply, with one difference. The final high day of the Flag type of rally may be on high volume and also may show the Exhaustion Gap or One-Day Reversal. If a short sale has been made into such a day showing high volume, gap, or One-Day Reversal, a stop order placed above the peak of the Flag will protect you should the advance be resumed unexpectedly.

In either the up-moving or down-moving manifestations of this type of action, there may be Flags having horizontal Tops and Bottoms, which are Rectangles. If the drying-up of volume and other aspects of the picture, including the sharp upward or downward move preceding it, suggest a Flag-type Consolidation, you would be justified in making a commitment on the sixth Reversal point, or for that matter, at almost any point in the pattern (because you cannot expect this pattern to continue very long).

Flags and Pennants continuing too long (more than three weeks) are open to question. Stops should then be set at the usual computed distance above or below their extreme Tops or Bottoms (as the case may be). The fairly frequent appearance of Flag-like Formations that eventually fail is unfortunate because it is particularly hard to give up hoping with this kind of pattern, and it is necessary to set the three-week time limit to prevent the stock from drifting all the way back to previously established stop levels. On the other hand, breakout moves from these patterns, when completed normally, are among the fastest and most profitable forms of market action.

The question remains what to do in the case of stocks you may be holding as they go into Flag or Pennant Formation. Obviously, they should be held if you are long and the move leading to the Flag is up; or short positions should be retained if the move is down. This would not happen ordinarily, however, if you had followed the trading rules strictly. In most cases, your signals calling for tight (1/8 point) progressive stops would have appeared during the formation of the "mast." You would have been taken out of the picture somewhere along the way, possibly at the extreme top of the mast (although ordinarily, you could not count on being so fortunate).

If no signal should appear and you still are holding a position as the Flag starts to make its appearance, by all means hold your position. The odds favor a continuation of the original move.

Now, if you have been holding the stock long (in a Bull Market) and have seen it break out and start leaping to new highs, say from 20 to 32, and you have been stopped out at 30, and then you see the price advance, halt, and during the next several days retreat, with the rather high previous volume drying up to practically nothing (it must be a drastic drying-up, and no mistake about it), then you are justified in buying right back in again, even at a higher price than you received only a few days before.

Gaps

If you are long a stock that is in a well-marked pattern formation, or in an area of dull movement within fairly narrow limits, and the stock suddenly breaks out on the upside with high volume and a gap, that is a Bullish indication. You will hold the stock until signs of exhaustion appear as the rise continues, or reappearance of high volume, or another gap or One-Day Reversal. Then, particularly if two or all three of these indications show up at the same time, you can protect your commitment with tight progressive stops. You will have to consider whether a second gap should be considered an exhaustion gap or a continuation gap, depending on the volume and the speed of the rise, as discussed in the chapters on gaps and their measuring implications.

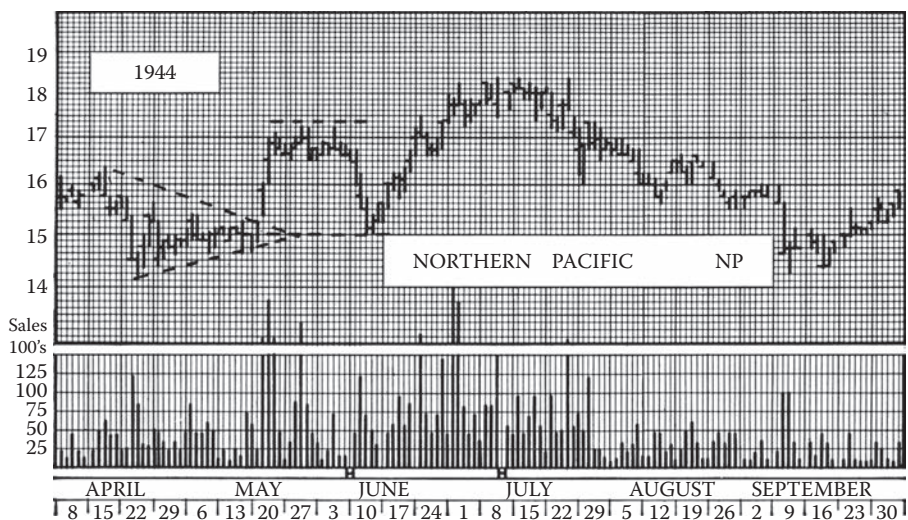


Figure 33.15 This daily chart in Northern Pacific, covering six months during 1944, shows several examples of Support and Resistance. The entire chart covers only part of the series of Consolidations that took place in 1943 and 1944 preceding the 1945–1946 advance that carried beyond 38.

Support and Resistance phenomena appear on many, in fact, on most of the charts in this book, and you will find them on the charts you set up for yourself. There is nothing unique or even unusual about the Support–Resistance action in “NP.”

Starting at the left in April, after the downside move on volume to 14 1/4, notice the recovery to 15 5/8 where the move stops at the Resistance Level of the preceding two weeks. After the formation of the Symmetrical Triangle, there is a breakaway move with a gap that runs right on up to above 17, where a small Rectangle is built during the next three weeks. The stock ultimately breaks down from this pattern on considerable volume. It is doubtful whether one would want to trade on this as a normal reaction after the breakout from the Triangle because of the downside volume and the implications of the Rectangle.

Note, however, how the reaction stops cold at the 15 line, the apex level of the Triangle, and then moves right on up. Rather surprisingly, there is only a three-day hesitation at the Bottom of the Rectangle, but a little setback occurs at the Top of that pattern.

The July Top might be classed as a Head-and-Shoulders or Complex or Rounding Top; in fact, it is almost a Rectangle, and after the downside breakout, prices hesitate at the level of the Top of the May Rectangle, continue down, find temporary Support again at the April Support Shelf around 16, and ultimately wind up a bit under 15. Although “NP” actually did penetrate and close slightly below the apex of the Triangle, the violation was barely 3%, and it is interesting to note this September Bottom was the lowest point reached. From here, the stock started its climb to the 38 level, which was reached in December 1945.

Ordinarily, after a Breakaway Gap, regardless of whether you sell on the next Minor Top, you would consider the move Bullish and would prepare to make a purchase on the next reaction.

Now if you are long a stock and during the course of a sharp rise it develops a gap after several days of the move, you must make your decision as to whether or not it is a Continuation (Runaway) Gap. If so, you would prepare to hold the stock for a further rise approximately equal to the rise up to the gap. You would watch the approach to the ultimate objective indicated very closely; on the appearance then of Reversal signals, you could protect your holding with tight stops.

If you are satisfied a gap following a good rise is actually an Exhaustion Gap, then you should protect your stock with a tight progressive stop at once.

In Bear Markets, you would apply these same rules in reverse to your short sales, remembering a downside breakaway is not necessarily accompanied by the high volume you expect on an upside breakaway.

Where you are long or short a stock that is moving in a Pattern Formation and the stock then makes a Breakaway Gap in the adverse direction, the commitment should be closed out immediately at the market, or on tight progressive stops.

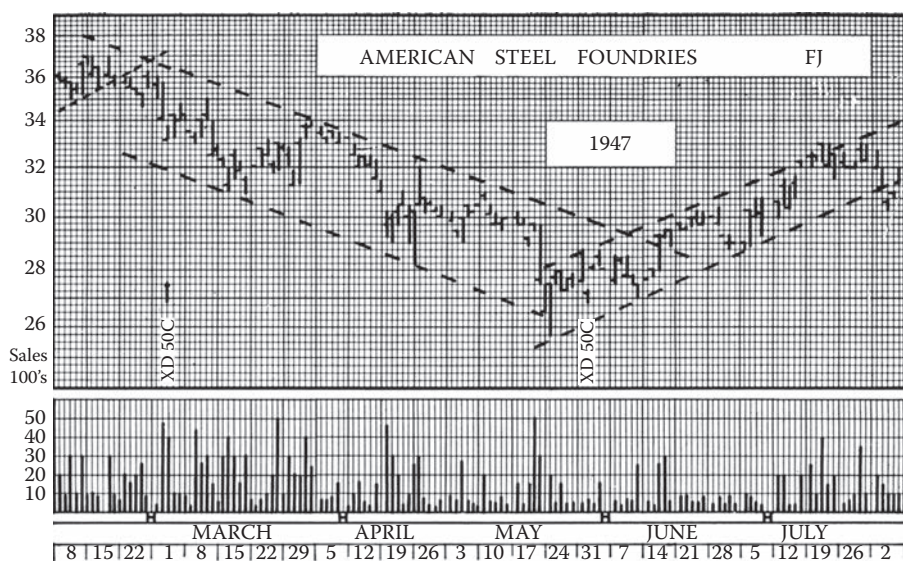


Figure 33.16 Trendlines in American Steel Foundries. This daily chart shows the tendency of trendlines to develop along straight channels. We have already pointed out that these channels are frequently easier to see in retrospect than during their formation, that stocks move in perfect channels only occasionally, and that all channels come to an end, frequently without warning. In this case, the long trend channel does give a warning of Reversal.

In 1946, "FJ" had declined from 48 to a Support Level of 30. From here it rallied for three months in a Trend Channel that brought us to the February Top at 37. The next decline broke the previous trend, and volume developed at the bottom of this break. If you will follow the entire chart, you will notice volume nearly always shows an increase at the points of Reversal, which are also usually points of contact with the Trend Channel. Notice also the way the Corrective Rallies tend to stop at or near the previous Minor Bottoms in the downward trend, and how reactions tend to stop at the previous Minor Tops in the upward trend.

Trading on this situation would have been profitable. The Secondary Intermediate Rally up to February approached the Resistance Level marked by a 1946 Bottom around 40, and a correction of the drop from 48 to 30 would indicate short sales around 37 (which objective was just barely reached). Such sales, if made, would have been covered after the first drop (week of March 1) around 33 1/4. New shorts at 34 1/2 would have been closed in the week of March 15 at about 31 1/2. Shorts made on the rally of the March 22 week around 33 would be covered in the week of April 19 at 30. If shorted again, the same week at 31, the sale would have been covered after the Climactic Bottom in the week of May 24. The combination, here, of great volume and a One-Day Reversal would have warned against further shorts.

The Rising Channel, being a Secondary, presumably of limited extent, would not offer any great inducement to long-side trading in the absence of other good reasons.

Support and Resistance

When you are long a stock, you do not want to see it violate any Minor Bottoms previously made. Neither do you want to see it violate any of the preceding Minor Tops that it has surpassed. Therefore, your stop orders will be placed at a computed distance, as explained in [Chapter 27](#) on stop orders, using both the Minor Bottoms and the Minor Tops as Basing Points. Normally, the Minor Bottom most recently formed will be at the approximate level of the preceding Minor Top, so that these Basing Points often will coincide. Ordinarily, therefore, in a rising trend, we look to the most recently formed Minor Bottom. When the stock has, for three days, made a price range that is entirely above the entire range of the day marking this Bottom, you may move up your stop protection to a place indicated by this new Basing Point.

The same procedure will apply in Bear Markets; the “three-days-away” rule being used to confirm Basing Points established by Minor Peaks and also by the preceding Minor Bottoms. Ordinarily, it will be sufficient to use the Minor Peaks as Basing Points.

Intermediate Tops and Bottoms are used in determining the probable objectives of Intermediate Moves because previous Tops constitute Support under Intermediate Reactions, and previous Bottoms indicate Resistance over Intermediate Rallies.

Multiple Tops are Support Levels. Multiple Bottoms are Resistance Levels. The neckline of a Head-and-Shoulders Pattern is a Support or Resistance Level, as the case may be. The apex of a Symmetrical Triangle is a strong Support and Resistance point that may show its effect again on a subsequent move. Any congestion or area at a certain price level or within narrow price limits may provide Support or Resistance when a stock moves again to that price or range.

Trendlines

We have already gone into the methods of following trends in stocks, and the use of the Top and Bottom Trendlines (Basic and Return Lines) as indicators of Bullish and Bearish opportunities, and as price determinants for executing purchases or short sales.

There remains the tactical problem of the stock in which you are committed, which is acting badly, but which has neither broken out of a recognized pattern nor violated an established Minor Peak. This is not a common situation, but it can present a very difficult problem when it does come up. Let us say the Major Trend is Bullish, and a certain stock that has been moving up irregularly in a Parallel Trend Channel confirms its uptrend by a long, more or less continuous advance and calls for repurchase on the next reaction. You buy on the reaction, and the stock continues down; namely, the reaction continues with prices sagging for days and weeks, without any rallies, Consolidations, or Corrections that are sufficiently well-defined to serve as Basing Points for stop orders.

In the absence of clear indications during the reaction, and also during the preceding large upward move, your stop would be placed at a computed distance *below the top of the preceding rise*. Plus, if the reaction continues down until that level is reached, you will have sustained an abnormally large loss.

In a case like this, you should examine the trendlines making up the long advance in the Trend Channel. The points of contact with the Basic Trendline can serve as a fair emergency substitute for Minor Bottoms. Your stop level, therefore (in the absence of more definite Basing Points), should be placed at the computed distance below the last point at which the stock made contact with the bottom trendline and moved decisively up away from it. If a penetration and close below this point occurs without catching the stop, sell on

tight progressive stops. (EN: The editor feels that such situations should occur only in position-building or pyramiding cases. Every effort should be made to join trends on breakout or origination, whatever the source. There is no excuse for "chasing stocks" in the modern environment in which literally monitoring all stocks and instructing the system to alert one to the conditions attending breakouts is possible with a computer. EN9: On the other hand, human frailty being what it is, we will all find ourselves chasing a train at some time or other.)

The reverse of this rule would apply to the same type of situation in a Bear Market, where stops for short sales would be placed at the computed distance above the point at which the stock made contact with and fell away from the upper trendline.

The changes of angularity and direction in Intermediate trendlines are helpful in showing the gradual turning of a Major Trend.



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chapter thirty-four

A quick summation of tactical methods

There are three types of tactical operations: (1) getting into new commitments; (2) getting out of commitments that have moved as expected and show a profit; and (3) getting out of commitments that have not moved as expected, whether the transaction shows a profit or a loss.

The principles of taking profits based on trends, Resistance and Support Levels, measuring implications of patterns, and most especially, on the daily technical and volume action of the stock, already have been covered. These profit-taking operations seldom present very difficult problems because the picture has developed normally and in the way you hoped and expected it would. The “stepping off” point is usually easy to determine.

The more difficult problems arise in making new commitments correctly, and in the very important defensive operations of getting out of losing commitments with the least possible loss.

It should be emphasized that a stock ceasing to act in a Bullish manner should, therefore, be sold and is not necessarily a short sale on the next rally. In other words, the signal that shows weakness or failure of a move in one trend is not always a signal to make new commitments on the opposite side of the market. More often than not, in fact, it is nothing of the kind.

We know certain moves, such as adverse breakouts from Symmetrical Triangles or Rectangles, advise us simultaneously to get out of commitments in what is now clearly the “wrong” direction and to make new commitments in the “right” direction. The simple failure of a trendline, however, where the stock merely penetrates an old Minor Bottom without completing a Head-and-Shoulders or other Reversal Pattern, although reason enough to get out of commitments that are showing losses, is not sufficiently conclusive by itself to justify reversing policy and making new commitments in the opposite direction. Therefore we separate the two types of signals as follows:

Get out of present commitments

- On adverse breakout from Head-and-Shoulders Formation.
- On adverse breakout from Symmetrical Triangle.
- On adverse breakout from Rectangle.
- On establishment of new Minor low or new Minor high in adverse direction.
- On adverse breakout from Diamond.
- On adverse breakout from Wedge.
- On One-Day Reversal if marked by heavy volume or a gap.
- On adverse breakout from Flag or Pennant.
- On clear penetration of any Resistance or Support Level in the adverse direction.
- On an adverse Breakaway Gap.
- On the appearance of an Island after a move in the favorable direction.
- On penetration of basic trendline in the absence of pattern or other favorable criteria.

Note: It is understood all breakouts must close in the breakout area. A closing 3% beyond the Support, trend, or pattern is sufficient to give the danger signal. All takeouts are performed by the use of 1/8-point progressive stops.

Make new commitments

- In line with the Major Dow Trend, or to a limited extent in countertrend, moves as insurance to reduce overall risk.
- On breakout from Head-and-Shoulders Pattern.
- On breakout from Symmetrical Triangle, provided it is not working into the final third of its length toward the apex.
- On breakout from Right-Angle Triangle.
- On breakout from Rectangle, or (possibly) on points of contact, beginning with the sixth Reversal.
- On breakout from a Broadening Top.
- On breakout from Double or Multiple Top or Bottom. (Namely breakout through the Bottom of the valley between Tops, or upside penetration of the “dome” between Bottoms.)
- On breakout from Wedge, or (possibly) commitments within the Wedge in the last third of its length as it approaches its apex.
- On Flags and Pennants, after sufficient Secondary or Corrective Move by the pattern, or (possibly) within the pattern, provided volume and all other indications tend strongly to confirm the pattern.
- On clear penetration of a well-defined Support or Resistance Area.
- On Breakaway Gap (possibly).
- After formation of an important and well-defined Island following a considerable move.
- On contact with, or penetration of, the “favorable” trendline if both trendlines are moving in the Major Trend direction. (Blue Top Trendline in a Bull Market, Red Bottom Trendline in a Bear Market.) *Note:* Breakouts and penetrations must show a closing in the breakout area and must conform to volume requirements. Breakout closings should conform to the 3% rule.

New commitments (marked “possibly”) may be made in certain cases within some patterns: Rectangles, Wedges, Flags, and Pennants. Exceptional care should be used in such cases.

It is extremely difficult to catch Breakaway Gaps; we would not recommend this as a general practice. (*EN: This is not so difficult as it was in Magee’s time thanks to modern communications, computers, and access to the internet.*)

All commitments, except those just noted, are made on the next following reaction or rally, to rules previously stated.

All commitments are protected by stops from the moment they are made. Stops are moved, as conditions justify moving them, but always in the favorable direction, never in the adverse direction.

chapter thirty-five

Effect of technical trading on market action

The question often is asked whether the very fact that traders are studying methods and patterns tends to create those very patterns and trends—in other words, whether the technical method sets up, to some extent, an artificial market in which the market action is merely the reflection of chart action instead of the reverse.

This does not seem to be true. The charts we make today seem to follow the old patterns; the presumption is very strong that markets have followed these patterns long before there were any technicians to chart them. The differences mentioned briefly in Section I, due to changed margin requirements, restraining of manipulative practices, and so on, seem to have changed these habits, if at all, only in degree and not in their fundamental nature.

The market is big, too big for any person, corporation, or combine to control as a speculative unit. (*EN9: And even beyond big in the twenty-first century. Gargantuan.*) Its operation is extremely free and extremely democratic in the sense it represents the integration of the hopes and fears of many kinds of buyers and sellers. Not all are short-term traders; there are investors, industrialists, employees of corporations, those who buy to keep, those who buy to sell years later—all grades and types of buyers and sellers.

What is more, not all short-term traders are technicians by any manner of means. There are those who trade on fundamentals for the short term, and those who rely on tips, hunches, on reading the stars, or on personal knowledge of the company. They are all part of the competitive market and all use methods different from yours—and sometimes they will be right and you will be wrong.

The technician using the various tools of technical analysis, Dow Theory, Point-and-Figure charts, oscillators, scale order systems, and monthly, weekly, and daily charts is in the minority. The cold attempt to analyze a situation on the basis of the market record alone does not appeal to many people. Technical analysis leaves out the warmth and human interest of the boardroom, the trading room, the fascinating rumors of fat extra dividends to come, the whispered information on new patents, and the thrilling study of the quarterly earnings reports. (*EN9: Unless I am mistaken the only appearance of irony in Magee's work.*)

It is the influence of all these rumors, facts, and statistics that causes people to buy and sell their stocks. It is their actions that build the familiar chart patterns. You are not interested in why they are doing what they are doing. So far as your trading is concerned, you are interested only in the results of their actions.

The habits and evaluative methods of people are deeply ingrained. The same kinds of events produce the same kinds of emotional responses, hence, the same kinds of market action. These characteristic approaches are extremely durable. It is not quite true that “you can’t change human nature,” but it is true it is very difficult to change the perceptive habits of a lifetime. Considering the “orthodox” investors greatly outnumber the technicians, we may confidently assume technical trading will have little or no effect on the typical behavior of free markets.

(EN: This statement by Magee is still true in principle and it should be noted in modern markets professional investors attempt to learn (or perhaps it is “the mysterious and anomalous market”) what makes systems and other investors successful. They then take action to frustrate those methods, which are inimical to their self-interest. For example, locals and professionals will search for stops above a congestion zone in an attempt to cause the market to break away. This might be in an attempt to create a trend or it might be in an attempt to create a Bull trap.

The proliferation of systems trend traders in the futures markets has, some of those traders feel, created conditions hostile to systems traders as a group. The moral of the story is the trader–investor must be ever alert for the false move and the changing rhythm of the markets.

No one has been able to quantify chart analysis or to disguise his own activities from the x-ray of the charts. Nor has anyone changed human nature to eliminate treachery and perfidy and truculent defense of self-interest.)

(EN9: And—dramatic drum roll—in 2005, Smith-Barney fires its entire technical analysis staff. What to make of this is left to the imagination of the reader. Some commentators attribute it to the Bearish outlook of the technical staff as opposed to the need of the firm to sell long positions to its customers. In my view, an unintended validation of the craft. When you have to shoot the messenger, it says something about the state of the market, as well as something about the industry.

Also, in conversation at a meeting of the Technical Securities Analysts Association of San Francisco (<http://www.tsaasf.org>), Larry Williams said, “I hate technical analysis.” I am reasonably certain the “technical analysis” referred to is number-driven analysis.)

Automated trendline: the Moving Average

In 1941, we were still filled with starry-eyed ignorance and felt if only we worked hard enough and looked shrewdly enough, we would discover the sure, unbeatable formula or system that would solve all our problems in the stock market, and all we would have to do for the rest of life was apply the magic and telegraph our broker periodically from Nassau, or Tahiti, or Switzerland, or wherever we happened to be enjoying life at the time.

We have learned (we hope) quite a bit since then. We have learned most particularly a number of things not to do and by not repeating the same errors over and over, we have been able to improve our performance substantially. We have also learned (to date) (*EN: still true in the twenty-first century*) there are no sure, unbeatable formulas or systems in the market, even the most useful and generally dependable forecasting methods must be regarded as statements of probability only, subject to revision and vulnerable to failure at all times.

One of the useful tools, and one of the first many students of market action adopt, is the trendline. Whether a stock is moving generally up or down or sideways, there seems to be a tendency for the Major Trend to persist. It is true every trend is broken sooner or later, and the fact that it has been broken is often significant. But given a well-established trend, the probabilities certainly appear to favor its continuance rather than its Reversal.

As with all other market studies, however, there are times and conditions in which the simple trendline action seems “not quite good enough.” One feels there should be some mechanical or mathematical way of determining the trend that might avoid some of the perplexities of choosing the right point through which to draw a trendline. It was back in 1941 when we delightedly made the discovery (although many others had made it before) that by averaging the data for a stated number of days, weeks, or months, one could derive a sort of Automated Trendline that would definitely interpret the changes of trend over the past 30 days, or 200 days, or 12 months, or whatever period was chosen. It seemed almost too good to be true. As a matter of fact, it was too good to be true.

The Moving Average is a fascinating tool and has real value in showing the trend of an irregular series of figures (like a fluctuating market) more clearly. It also has value in the fact it can be used to cancel out the effect of any regular cyclical variation, such as a normal seasonal range of temperatures, to get a better picture of the true secular trend.

The trouble with a Moving Average (which we discovered long since but keep bumping into from time to time) is it cannot entirely escape from its past. The smoother the curve (longer cycle) one has, the more “inhibited” it is in responding to recent important changes of trend. Plus, there is a very bad fault of Moving Averages in that “the tail tends to wag the dog”; the figures back to the first date of the current tabulation, perhaps six months ago, or a year ago, if they are large, may unduly affect the present average, and may conceal or mask some important feature by distorting the curve. We feel the Moving Averages trendlines are useful, but they should be understood and used with discretion and with a full perception of their limitations.

After going through some of the caveats of Moving Averages, let us give you some of the ways to construct them. Moving Averages can be classified as Simple Moving Averages, Weighted or Exponential Moving Averages, and Linear Moving Averages. We have found over the years, and prefer, the simple methods that work just as well and sometimes better than the more complicated Moving Averages, while the others are more useful when using computers.

For this reason, we will concentrate on Simple Moving Averages. The most common are the 50-day and the 200-day Moving Averages. If you want to increase the sensitivity of a Moving Average, shorten the Moving Average by using 10 or 20 days. Another way is to increase the lead time by starting on the third day for the 10-day Moving Average, or on the 20th day for a 50-day Moving Average, and so on.

To construct a Simple Moving Average, whether it is 5 days, 10 days, 50 days, or 200 days, add the price of 5 days and divide by 5, or the 10 days and divide by 10, or the 50 days and divide by 50, or 200 days and divide by 200. A simple way of doing the five-day Moving Average, instead of adding all five prices each time, is to drop day one and add day six. A similar method can be used in calculating the 50-day Moving Average or the 200-day Moving Average. Instead of adding the 50-day Moving Average each time, just drop the first day of the previous average and add the 51st day. The same with the 200-day Moving Average; drop the first day of the previous 200 and add the 201st day. Another way of calculating the 200-day Moving Average is to take one day of the week of 30 weeks, such as Wednesday or Thursday, add them, and divide by 30. This will give you the same Moving Averages as you would have doing 200. Another way to put it is, on the second day, take the total, add the new day's price, and subtract the oldest day's price from your 5-day, 10-day, 50-day, or 200-day Moving Average, whichever way you are doing it. Repeat the process on a daily basis and divide by the representative day—for the 5 day, you would divide by 5; for the 10 day, you would divide by 10; for the 50 day, divide by 50; and for the 200 day, you would divide by 200.

Sensitizing Moving Averages

The shorter the time period, the greater the sensitivity you will develop in your Moving Average. The 5-day Moving Average will be much more sensitive than a 10-day. The problem with short-term Moving Averages is you can have a greater number of false moves. Shorter Moving Averages are more suitable for commodities. On commodities, we would even advise using a 30-hour, a three-day, and a six-day Moving Average.

It is often better to use two Moving Averages, one of shorter duration and one of longer duration. In addition, you can use channels, a Moving Average of lows and a Moving Average of highs. (EN10: *In the markets of the 2000s, the most watched Moving Averages are the 50-day and the 200-day. In fact, these two have gained almost iconic status.*)

Crossovers and penetrations

As a general rule, consider the crossing of two lines (EN10: *as 50 and 200*) by the price line as a sell or buy signal in the direction of the crossover or penetration.

1. Uptrends—Long positions are retained as long as the price trend remains above the Moving Average Line.
 - a. When the price line intersects or penetrates the Moving Average Line on the upside, it activates a buy signal.

- b. When the price line goes above the 200-day Moving Average, but falls sharply toward it without penetration, it is a possible buy signal. Additionally, conditions at the time must be closely observed.
 - c. When the price line falls below the Moving Average Line while the line is still rising, it could be a buy signal.
 - d. When the price line spikes down too fast and far below a declining Moving Average Line, a short-term rebound toward the line may be expected: a possible whipsaw trap.
2. Downtrends—Short positions are held as long as the price trend remains below the Moving Average. When the price trend reaches a bottom and turns upward, a penetration of the Moving Average is a possible buy signal.
 - a. When the price line moves above the average line while the average line is still falling, it is a sell signal.
 - b. When the stock price line moves below the average line and rises toward it, but fails to penetrate and breaks down again, it is a possible sell signal.
 - c. If the price line rises too fast above the rising average line, a short-term reaction may be expected: could be a whipsaw.
 - d. Occasionally, penetration of the Moving Average Line will occur in close conjunction with the penetration of a trendline, and then according to its direction, it is a buy or sell signal.
3. Horizontal, Diagonal, or Sideways Movements—If the fluctuations are broad in comparison to the length of the Moving Averages being used, the price trend will fluctuate back and forth as the Moving Average, true to its character or purpose, moves horizontally. The trader must be alert to the need to change tactics.
4. Gaps—Moving Averages, depending on their length, may have a tendency to be penetrated in proximity to a Breakaway Gap, particularly at the beginning of a Major Phase of an Intermediate cycle, and also in such cases in which Breakaway Gaps occur at the beginning of correction phases.

Area Patterns can be a pitfall for the Moving Averages. Normally, the Moving Average oscillates through the center of these areas, producing buy and sell signals in rapid succession. In Area Patterns, the Moving Average is a headache to the trader because he never knows which penetration is the one preceding either the renewal of the trend or the Confirmation of a Reversal.

When trading areas develop in the form of Triangles—Descending, Declining, or Symmetrical—the Moving Average will trend through the center of the Triangle. The technician has some small advantage in judging which of the series of penetrations of a Moving Average is the important one. When the Triangle reaches its apex and the stock breaks out in one direction or another and penetrates the Moving Average, the penetration is likely to be the most important one during the sideways movement of the Triangle's development. Penetrations occur many times in close conjunction with the penetration of a trendline.

As a price derivative product, the Moving Average can be a trend indicator by the way it fits a trendline. Nevertheless, it should be considered an adjunctive tool to everything else you have learned in relation to technical analysis.

(EN10: Magee had, and I have, an instinctive aversion to mechanical systems. We want to see and feel the analysis and the moment and consider the context and the subtle variables. A mechanical system of any type—and a Moving Average system is not bad in broadly trending markets—is blind. It will throw your capital in front of an on-rushing train and merrily hum along while the



Figure 36.1 150-day Moving Average (dotted line). Up to the 1980s (the period during which Ronald Reagan tripled the national debt) trading the 150-day Moving Average (buying on an up crossover and selling on a down crossover) gave a trader somewhat the same advantage that trading the Dow Theory afforded. In the 1980s, the system stopped working. Here in 1929 it would have been a lifesaver, as can be seen. Not illustrated here is what the Moving Average does in a Dow Line, or rectangle or congestion pattern. If taking signals on crossovers one could find his capital ground to hamburger meat.

market is eating your lunch. I have called these “unnatural” systems—they interpose an algorithm between the trader and the facts. This reduces decision-making stress but can go badly awry in some types of markets.)

A 150-day Moving Average is charted in [Figure 36.1](#).

The PENTAD Moving Average system from Formula Research

One of the solid and prestigious technical research firms in the country is Ned Davis Research, Inc. (NDR). Nelson Freeburg of Formula Research has taken one of NDR’s systems and tweaked it to yield what may be an effective long-range approach to the market. It is presented here because Magee was interested in Moving Average systems, as well as investors who are graphically challenged, meaning they can relate to numbers but not to pictures.

Freeburg took an NDR Moving Average system and a 20-week Moving Average, added a filter, and produced a system that reportedly has an 80% profitability on signals and generated returns in the 15% range going back to 1942. Since 1980, returns averaged 19%. We all know (or the reader can quickly demonstrate to himself with a software package) that a Moving Average tends to create whipsaws in a sideways market. As the market moves sideways, the Moving Average moves through the pattern creating buy and sell

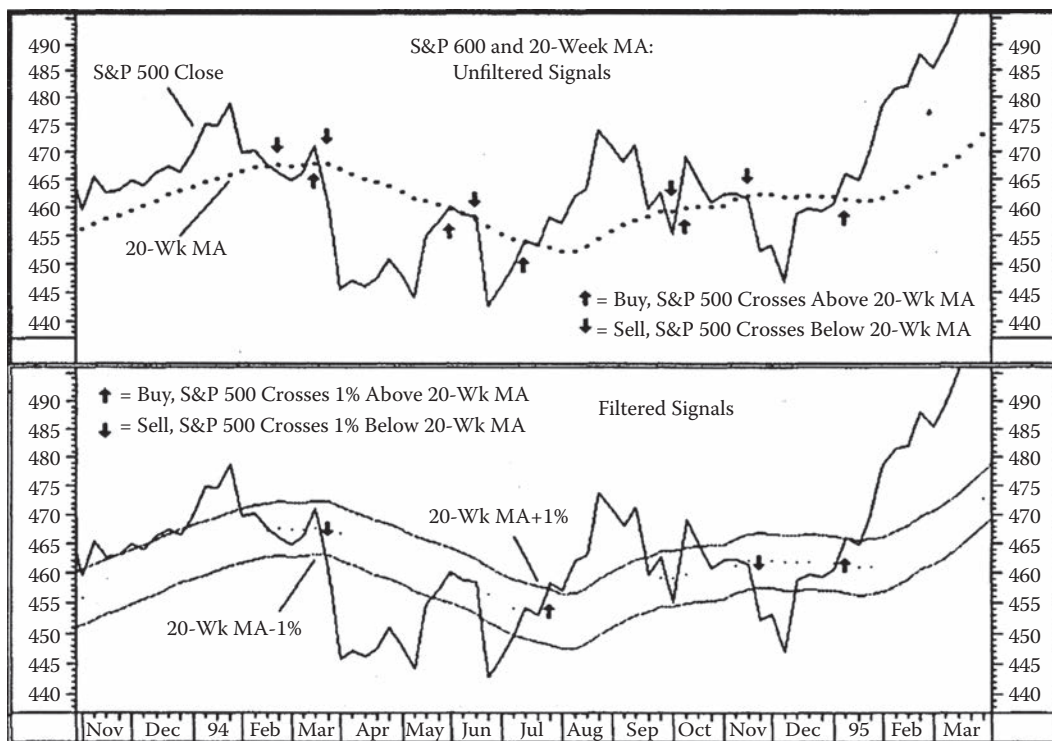


Figure 36.2 Looking at the top chart, we can see the deleterious effects of using a Moving Average system in a sideways market. Of course, at the end in January 1995, the system gets ready to cash in big time. You will never miss a big market with a Moving Average system—if you have any capital left after the whipsaws. Yet when a 1% filter is added, the number of trades is dramatically reduced and the accuracy improved. Something systems traders never think of is a qualitative filter—looking at the context when price crosses the average. What is the volume and what is the price action? Also, the trader can experiment with different-size filters and filtering conditions.

signals as price oscillates about it. In a common-sense move, Freeburg added a filter to the system that immeasurably improved it. Readers should be aware we include this method because experience tells us this kind of system can be effective, but we have not validated the research. Also, any system including the 1990s is guaranteed to have good, if not spectacular, results. Diagrams illustrating the idea are shown in [Figure 36.2](#).



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chapter thirty-seven

The same old patterns

To the newcomer, the market appears filled with wonders and mysteries as the landscape of Mars will appear to the first space travelers to land there. There are strange rumblings, apparently unexplainable upheavals, weird growths. An unknown stock will suddenly emerge from a morass of debt and deficit and proceed to soar to great heights. An old and trusted issue will paradoxically sag and droop, although apparently rooted in the soil of economic stability. All will seem peaceful and secure, and, suddenly, the ground opens up and swallows values in a sensational market break. (For illustrations in this chapter, see [Figures 37.1](#) through [37.54](#).)

Such a newcomer, perhaps not realizing what appears unusual and alarming is only the normal fluctuation and adjustment that goes on continually in the market according to the changing evaluations of millions of investors, will feel frightened, insecure, and indecisive. He may scurry from boardroom to boardroom, personally or on the telephone, scan the financial pages, talk with friends, accumulate a mass of conflicting information, and end up shutting his eyes and making a blind stab in the hope he may come up with the right answer.

Some never, even after years of contact with the market, achieve a tranquil and assured approach.

However, it is possible to learn something about the basic nature of stock trends. It is possible to know, within reasonable limits, about what might be expected in certain situations. It is also possible to find ways of coping with these situations, including the exceptional cases that persist in doing the unexpected. To repeat: it is possible to deal successfully with the unexpected and with what cannot be precisely predicted.

To put it another way, it is possible to be wrong part of the time and still to be successful on the balance. To do this, it is only necessary to have a background of experience sufficient to know what will usually happen under particular conditions, about how often the unexpected will occur, and how to deal with the unexpected when it does happen. These are the same general problems that would confront the space traveler, the chemist, the physician, or almost anyone else in his daily affairs.

There are men who have observed the market long enough and carefully enough to discover there are not quite so many unexpected events as the newcomer might be led to believe.

The charts in this book are, in the main, the same as those used for examples in the first edition in 1947. Some of them show situations from 1928 and 1929, others from the 1930s and 1940s. (*EN: And still others from the 1980s, 1990s, and 2000s.*) The reader can hardly overlook the similarities that occur in various stocks at different times during corresponding phases of their trends or turning points.

We have said that these same patterns, trends, and Support/Resistance phenomena repeat themselves over and over again, and that they may be observed by anyone in his own current charts for any period of time, in any normally active stocks, and on any exchange or market.

By way of demonstration, there were included in this chapter of the fifth edition a number of typical technical examples, similar to those already discussed, but taken from

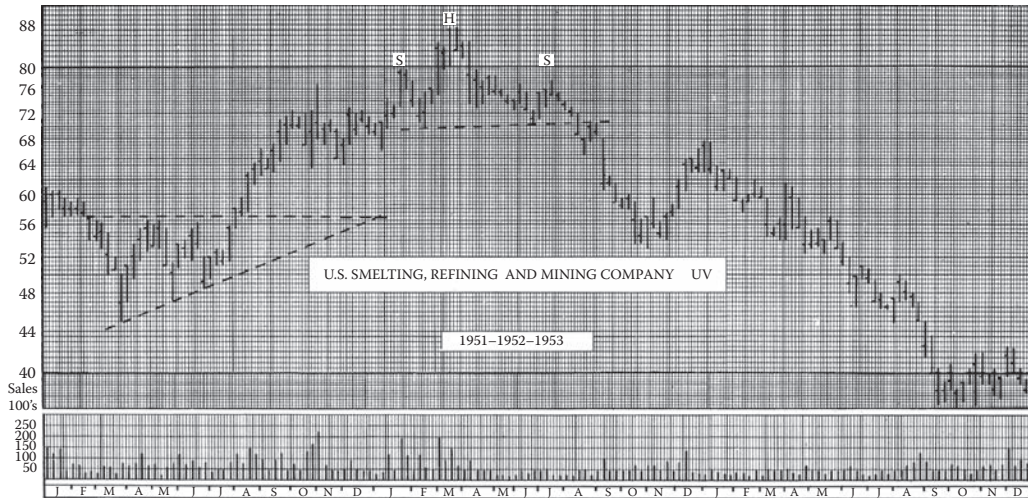


Figure 37.1 A 1952 Major Head-and-Shoulders Top in U.S. Smelting, Refining and Mining. This stock had moved up from a bottom at 33 in 1950 to the peak at nearly 88 shown here. The decline carried down to 37. This chart shows the typical high volume on the left shoulder. The volume at the head is a little higher than in the “ideal” pattern. Light volume on the right shoulder is a definite warning. Notice the Pullback Rally to the neckline in the last week of August. Also, the Secondary Recovery in November and December. There also appears, at the left side of this chart in 1951, a beautiful example of an Ascending Triangle, indicating the resumption of the previous interrupted advance.

the period 1947–1966. (EN: *The eighth edition includes examples taken up through the turn of the millennium.*) It would be possible to include ten times the number of good examples, for almost every situation that has been previously illustrated has appeared again and again in recent years.

Not all the same

Although a majority of stocks will participate in a big market trend, they will not all move at the same time or to the same degree. Some will move quite independently and contrary to the Averages. There was a “boom” in the 1920s and there was a Panic in October 1929, but these are inadequate statements, half-truths if you will, and can be very misleading if they are swallowed whole. A technician, following the individual behavior of stocks, would have been able, through a balanced and diversified portfolio, to protect himself against irreparable loss.

The facts are that of 676 stocks we have studied through the period 1924–1935, only 184 made a Bull Market Top in August–September–October 1929 and suffered Major Declines in October and November of that year. There were 262 stocks actually in Major Downtrends before the year 1929. Another 181 stocks made their Bull Market Tops in the first nine months of the year and were already moving down before the end of the summer. Five stocks did not start their decline until after 1929 and 44 stocks continued to make new highs after 1929. In [Figures 37.9 through 37.11](#), there are three stocks showing very different trends during the years 1927–1930.

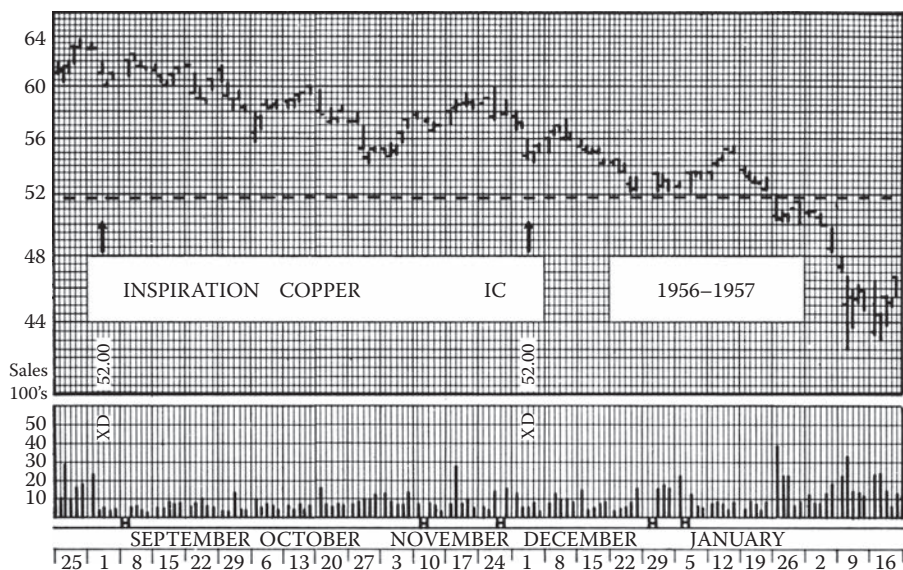


Figure 37.2 Downtrends seldom show the perfect and regular trendlines we often see in uptrends, but in spite of the irregular, ragged rallies and spotty volume action, the basic principles are about the same as for advances. Notice in this six-month period, Inspiration Copper had no rally that carried above the Top of a preceding rally. A well-marked downtrend of this sort must be presumed to continue until there is a marked change in the pattern and volume action. Notice the volume on the day "IC" broke the historically important 52 level, and subsequent action.

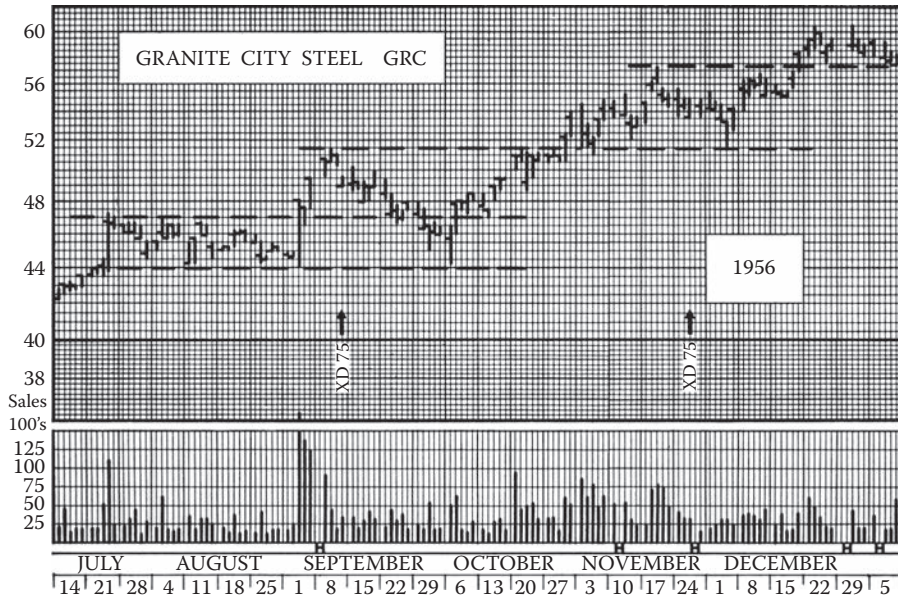


Figure 37.3 Part of the Major Advance in Granite City Steel. Here we see the familiar phenomenon of Support and Resistance in almost every move through the period shown.

The August–September Rectangle held for six weeks between the top limit of 47, which was reached on three occasions, and the bottom at 44. Like most Rectangles, it was marked by heavy volume at the start on July 19, and gradually declining volume as the pattern progressed. The breakout move on August 29 was on enormous volume.

After this breakout, there was a typical Flag-like reaction on sharply diminished volume, and although this move penetrated the top border of the Rectangle, the penetration was not decisive or significant, and the lower border was never violated. Now, see how volume appears on October 15 as the old high is reached, and again at the top of the move on November 14. The decline returns to the level of the September high on a low-volume reaction. It is interesting how, on five occasions in this chart, the 52 level served as a Support or Resistance point: twice as Resistance on the way up, and three times after the new October high, as Support.

On the next rise, we see almost the same type of advance. In this case, the Support–Resistance Level is about 57. Notice the approach to the critical level, the backing away, the aggressive move into new high ground (in mid-December), and the recession to the Support at 57.

Advances of this sort seem to represent the ebb and flow of the Minor Moves during a Major Trend when there are no great “news developments” to change the normal progress of the trend. Where there are frequent and important changes in the market or in news affecting the industry, we may see long Consolidations or Secondary Reactions, but the Major Trend is durable. We must not assume a Major Reversal prematurely.

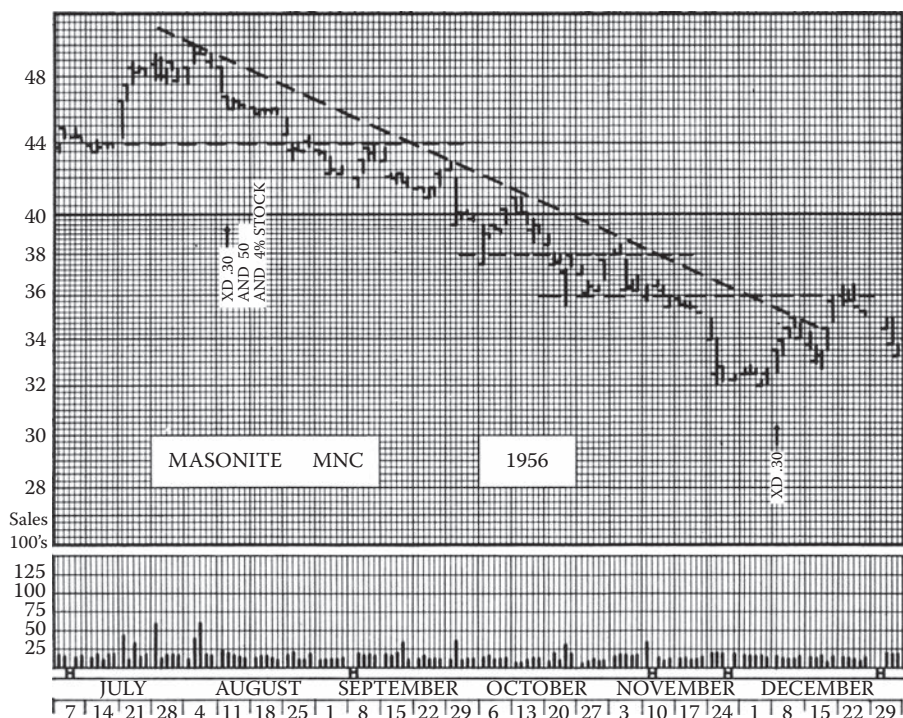


Figure 37.4 During the same period that Granite City Steel was making the series of steps upward, as shown in [Figure 37.3](#), Masonite was doing almost the same thing in reverse.

To have continued to hope for a change in trend with a stock that was acting as “MNC” did through the latter part of 1956 would have required an unusual amount of optimism or innocence about the habits of stocks. Actually, there would be good reason for optimism if the stock had been sold short early in the trend.

This is almost a perfect counterpart to the “GRC” chart. We have not only a series of declines with rallies that fail to establish even Minor highs above the previous Tops, but we are also able to draw a trendline with a number of points of contact on the way down, which is somewhat unusual in a downtrending situation. Notice the tendency of the rallies to stop short at the level of previous bottoms in a series of Support-Resistance Levels. We see such action at 44, at 41, at 38, and at 36.

We would certainly not consider the breaking of the trendline on the upside in late December as evidence of a Reversal. Such a break after a trend of this sort probably means no more than a Secondary Recovery. To be of greater significance, it would certainly call for some volume showing, which was utterly lacking here, and before we would consider the stock again strong enough to buy, there would have to be some sort of Reversal Pattern. A faltering rally back to around 40 would, in fact, suggest the advisability of further short sales.

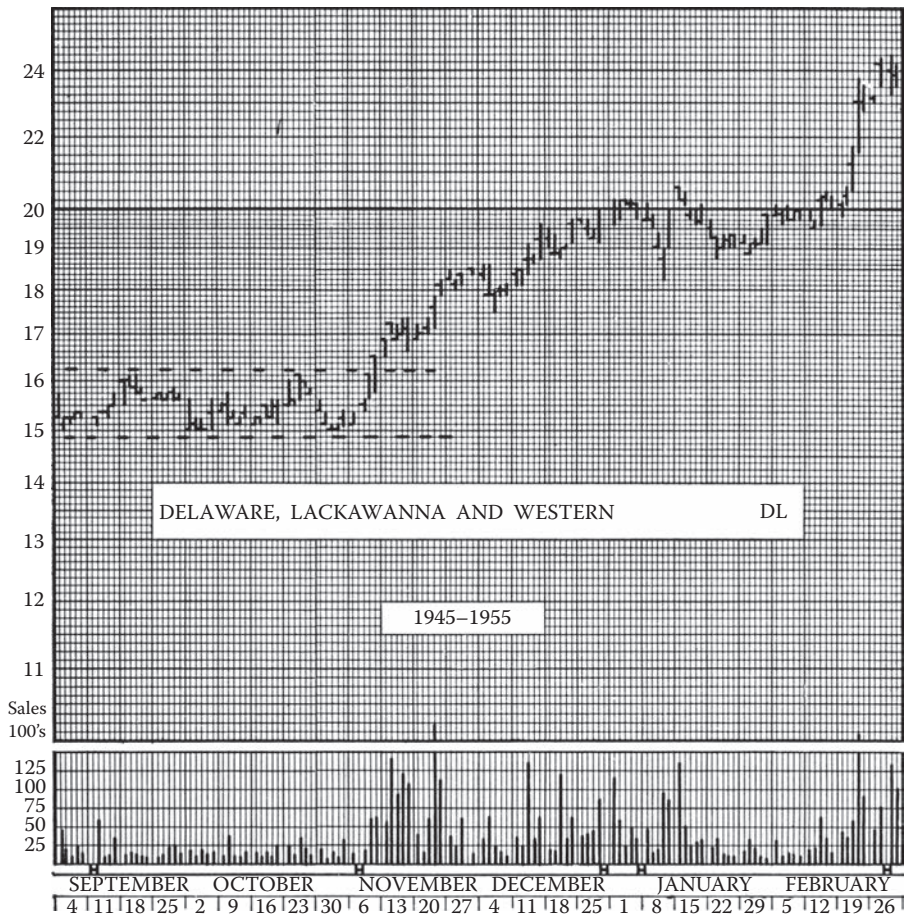


Figure 37.5 Very often you will hear the question, “But how can you tell whether a technical formation or a breakout is valid?” In many cases, and in a great majority of upside patterns, the volume gives such a decisive answer that all doubts are removed. Not always is the volume confirmation as clear as in this chart of Delaware, Lackawanna and Western, but this is typical of a good many breakouts in uptrends. You will see the volume was generally light during the Rectangle, in which we see five plainly marked Tops and Bottoms.

On Thursday, November 4, the volume increased sharply as the price moved up to the top of the Rectangle and closed at that point. The following day, Friday, we see good volume again with a close beyond the top border. From this point on, the move is obviously upward.

There was no indication of Reversal at any time after the breakout. A Top was reached in March at 25 1/2.

This was an especially vigorous move as it came out of the Rectangle. Normally, we would look for Minor Setbacks such as the series of reactions in “GRC,” [Figure 37.3](#). If these had occurred, it would in no way have weakened the Bullish Pattern.

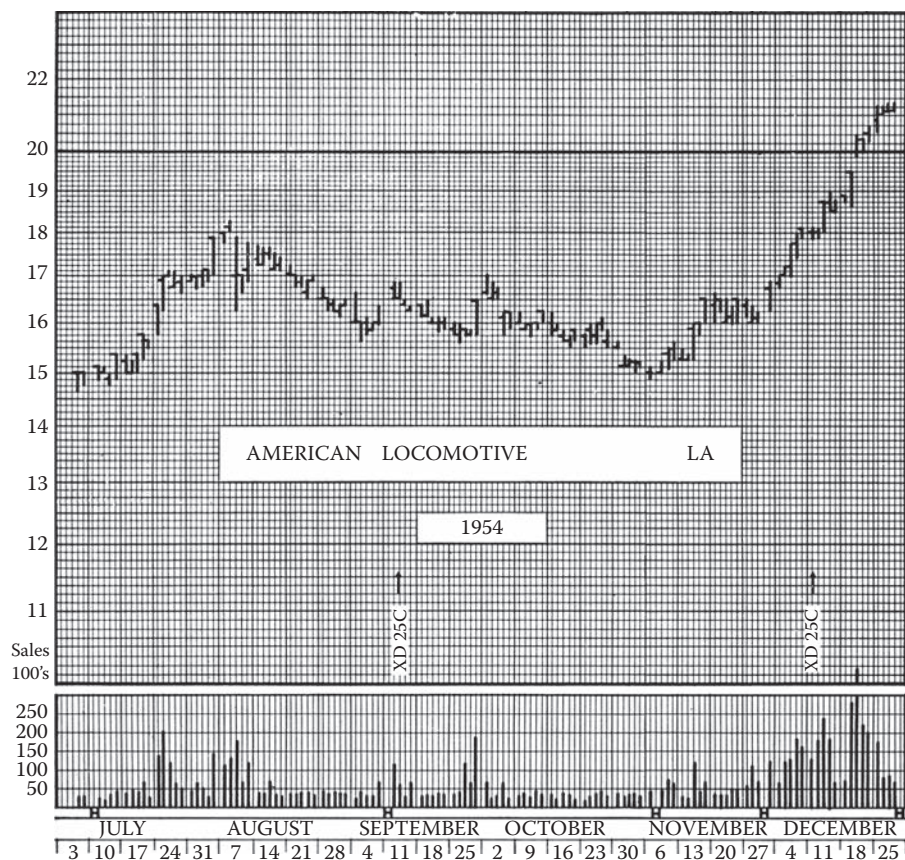


Figure 37.6 The situation, somewhat similar to “DL” in [Figure 37.5](#), presents a little complication. The problem would have been whether to sell or continue to hold “LA” after the late October break down through the Bottom of the Rectangle. There was no important volume on this drift move, and on only one day did the price close barely 3% below the bottom of the pattern. A holder of the stock might well have sold it, might even have executed a short sale.

Suppose now, you had actually sold the stock short; observe the volume and the price action on Thursday, November 4, and Friday, November 5. Notice the volume and the price on the following Monday and Tuesday as it reacted slightly. Then see the quick pick up in volume as the price advanced on Wednesday, the week and a half of dull Consolidation, and the larger volume on the move up on Friday. Surely by the middle of the first week of December, if not before, you would have seen the danger signals and closed out your short.

Such a turnabout does not need to be a tragedy nor even a discouragement. Some easily discouraged traders would be so concerned about the small loss realized on their unsuccessful short sale they would not be ready to seize the opportunity to reverse position and buy the stock after the strong up signals. This move carried to 26 3/4 in March 1955.

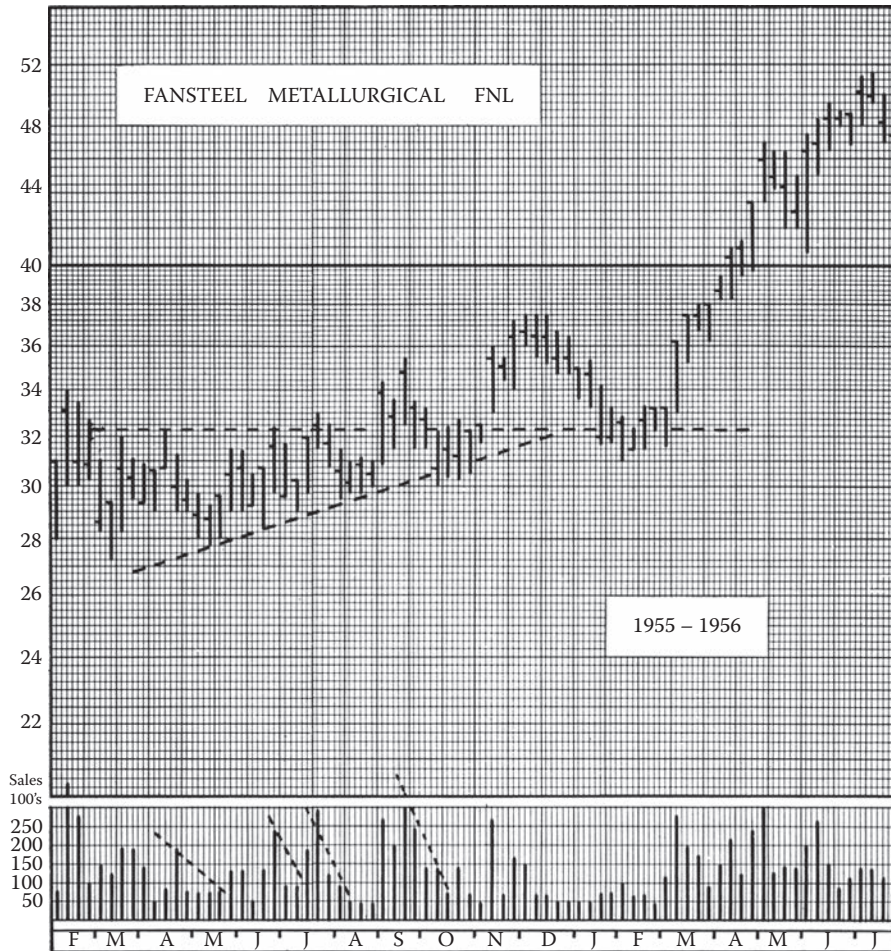


Figure 37.7 Bottoms normally take longer to complete than Tops. That is one reason we have this chart of Fansteel on a weekly basis, so that a year and a half of the action can be shown. The pattern shown at the left is a Consolidation formed after a rise from the 1953–1954 Multiple Bottoms around 21. The top of the Ascending Triangle corresponds roughly with the April 1953 peak.

At the time this Triangle started, in early 1955, it was not possible to identify it as such—particularly since the February high ran a little higher than the horizontal Tops that eventually formed. However, during the seven months preceding the first breakout move, it became increasingly clear each rally to the neighborhood of 32 1/2 was followed by a reaction on low volume, and these reactions were forming a series of Rising Bottoms.

In the first week of September we see a clean penetration upside, and from here on, the advances and declines fit into the typical pattern of a Major Advance. Notice the Breakaway Gap in November and the low volume throughout the December–January–February reaction.

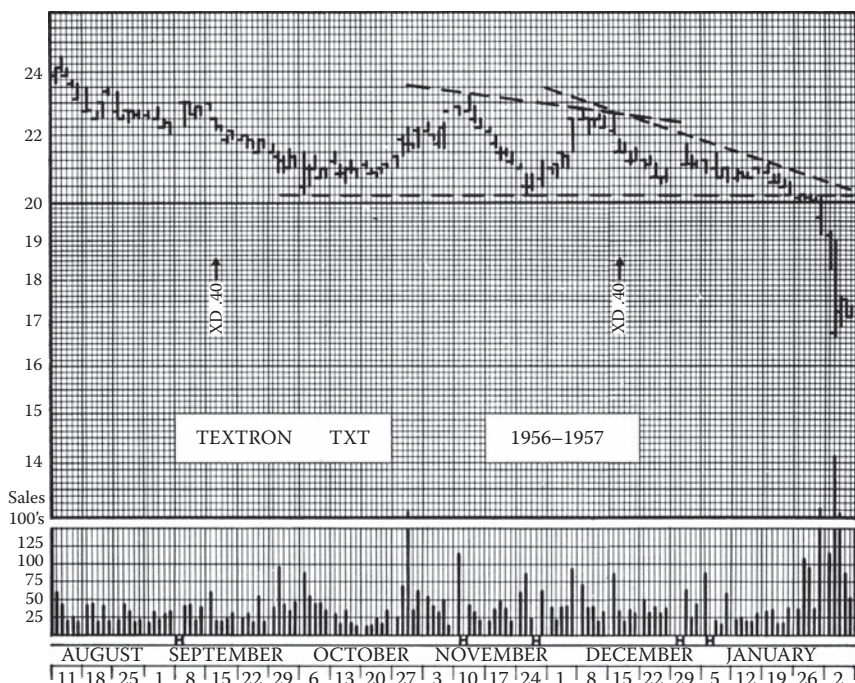


Figure 37.8 Here, in a daily chart, we see once again the dramatic sequel to a Descending Triangle. Here is the typical series of declining Tops on rather low volume with retreats between the rallies to a horizontal line.

Notice the important Support here was violated with heavy volume on Friday, January 25. Although the degree of penetration was not great, in view of the generally Bearish reaction to this point we would sell at once. A Descending Triangle has Bearish implications even before the breakout. There was no substantial Pullback after the breakout. Since it is not possible to count on such a recovery after a break through Support, it is safest to sell long holdings immediately or to place a very near stop on them as soon as a close outside pattern occurs (in this case, outside the pattern as adjusted for ex-dividend).

Notice the pickup of volume as the price drops into a tailspin at the end of January. Heavy volume is not necessarily a feature of important downside moves, but it may, and often does, accompany them, and when it does, it simply underscores the significance of the move.

Question: does Textron look like a “bargain” to you at the end of January on this chart? Would you be tempted to buy this stock because “it can’t go down any more,” or because it is “due for a rally,” or because it is “selling below its true value”?

Suppose “TXT” did have a technical rally, which seems quite likely after the move shown. How far would you look for it to go? Would you expect it to penetrate the 20 level in the near future? Would you call this a Bullish Situation at the end of January 1957?

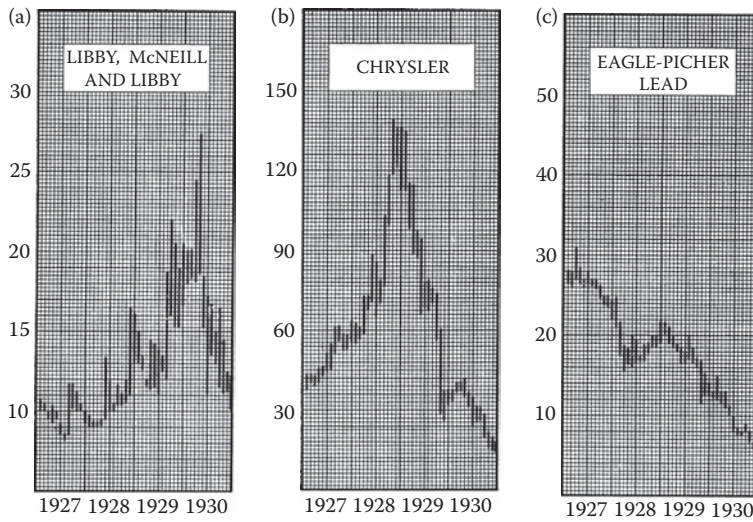


Figure 37.9 (a) Libby, McNeill and Libby showed no serious effects at the time of the October 1929 panic, and went on to new highs in March and April 1930. (b) Chrysler, one of the great market leaders, made its Bull Market Top in 1928, more than a year before the Panic, and had already lost 60% of its value before October 1929. (c) Eagle-Picher Lead never enjoyed any Bull Market at all. Aside from an unimpressive rally in 1928, it was in a downtrend all the way.

The examples given are not rare exceptions; there are many others involving important stocks that did not follow the pattern set by the Averages. This variety of behavior is typical of the market. It is to be seen today. They are *not* “all the same,” and each stock must be studied individually. In [Figure 37.10](#), there are a few examples showing disparate action during the years 1953–1956. There are hundreds of others that would illustrate the point equally well.

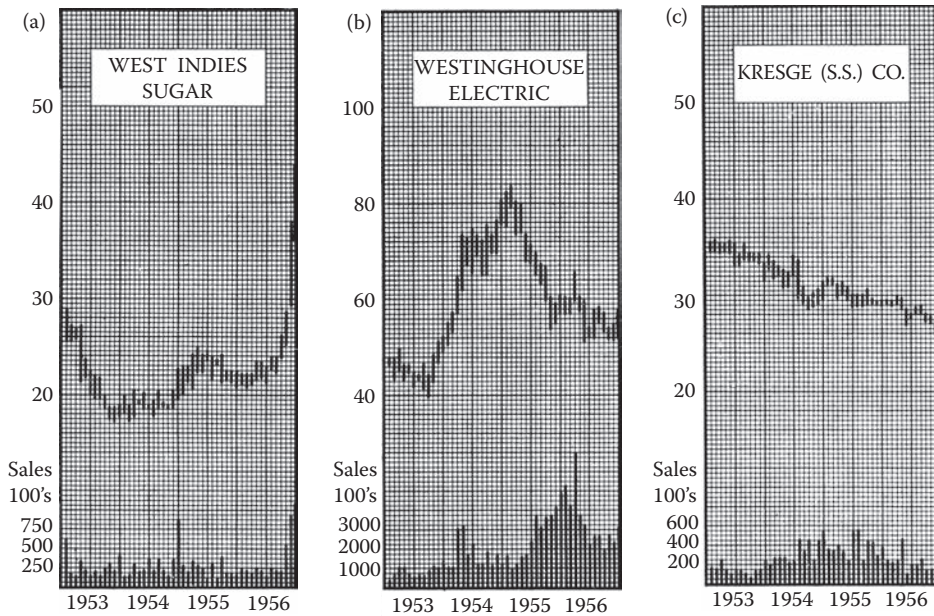


Figure 37.10 (a) West Indies Sugar broke out of its “Scalloping” Pattern in late 1956 to make its own Bull Market at a time when action in the Averages was apathetic and generally weak. (b) Although the Averages continued to make new highs through the spring of 1956, Westinghouse Electric made its top and went into a Major Decline more than a year earlier. (c) Here is a companion piece to Eagle-Picher’s chart of more than 25 years ago, shown above it. Kresge, like a number of other “blue chips,” did not participate in the Bull Market Moves of 1953–1956.

These six charts were adapted from “Graphic Stocks” (F.W. Stephens, New York). The 1927–1930 charts are from a Special Edition covering nearly 700 stocks through the period 1924–1935. The 1953–1956 charts are from a later edition of “Graphic Stocks.”

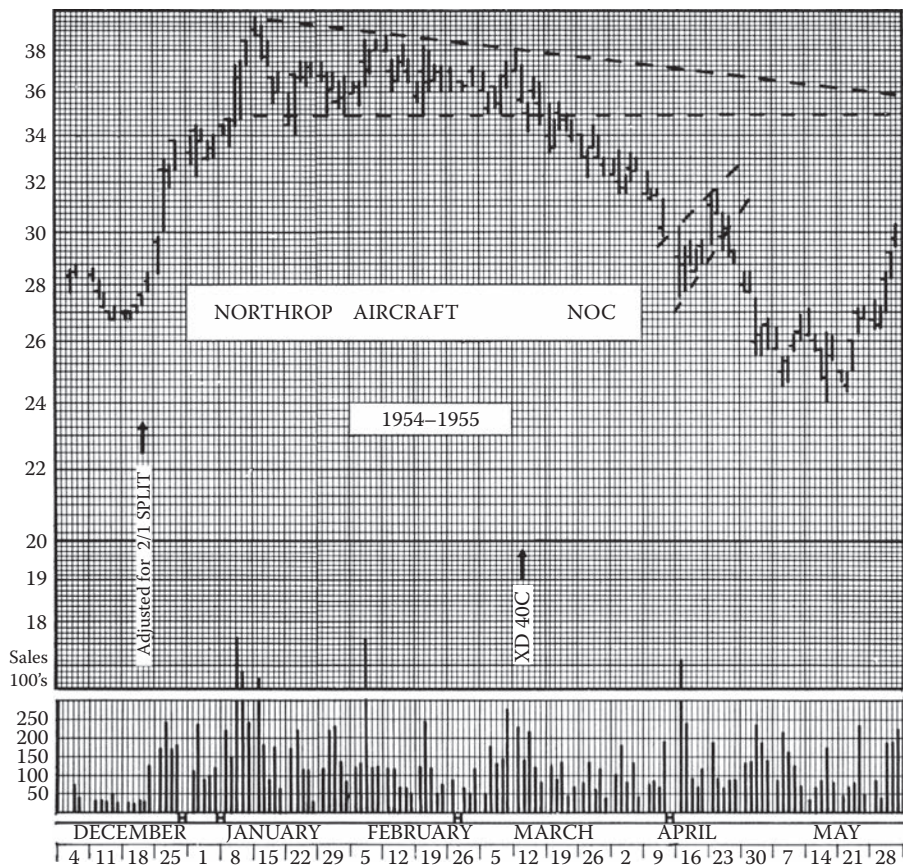


Figure 37.11 A beautiful Top Formation in Northrop Aircraft, 1954–1955. The move, which ended here at $39 \frac{3}{4}$ in January 1955, emerged from a Bottom in 1953 at $6 \frac{1}{4}$.

The Descending Triangle is marked by rather unusual volume at the peaks of rallies in February and March. Otherwise it is typical of this sort of Reversal Pattern. As so frequently happens, there was a Pullback effort after the March 14 breakout, but this rally lasted only two days.

You will notice the volume on the breakout and throughout the downside move was not so spectacularly heavy, not nearly as heavy, in fact, as on the Minor Rallies within the Triangle. As pointed out previously, however, we do not need or expect so much volume on a decline as we look for in an advance.

Volume did not develop until the end of the first stage of the decline. It is quite usual for heavy volume to show up at the end of a Minor Move whether on the upside or the downside.

Notice the Flag formed on the subsequent rally in mid-April. The measuring implications of this Flag were approximately carried out a month later.

During the following year and a half, “NOC” never reached 31 again.

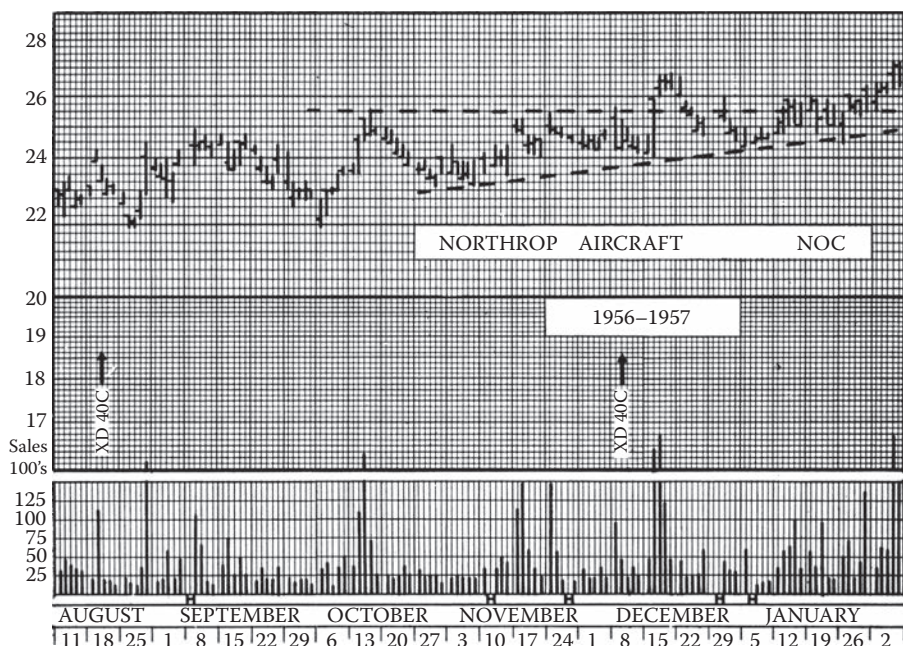


Figure 37.12 Bearing in mind the 1954–1955 chart of Northrop in [Figure 37.11](#), we now turn to the action in this same stock in the latter part of 1956 and the beginning of 1957. The question is whether the Major Downtrend is still in effect or whether an important upturn has taken place.

As usual, it is the volume that must be watched and studied. Notice the Minor Peak on August 14, then the very heavy volume on August 24. See how the activity dries up during September but resumes briskly as a new Minor Top is established in October. Observe the drying-up of volume on declines and the activity on rallies to the 25 1/2 level, which, by the middle of December, has become the horizontal Top of an Ascending Triangle.

There was no question about the validity of the breakout move on December 10, and the subsequent reaction in the next two weeks confirmed this by the lack of activity on the decline. Again, in early February, we see volume pick up notably as a new high is registered.

At the time this is written (EN: 1957), it is not possible to say whether or not “NOC” will continue this upward course and eventually smash the “31 barrier.” We feel there will be no doubt in the reader’s mind at the beginning of February, Northrop was presumably moving in an uptrend and must be presumed to be in that trend until a definite change in its market action has taken place. It seems quite probable if “NOC” should advance to the 30–31 level, there is likely to be a period of Consolidation with the formation of an Area Pattern before a successful advance above 31 is accomplished.

As a sidelight on this chart, it might be mentioned that during the period of advance shown above, many aircraft stocks were moving lower.

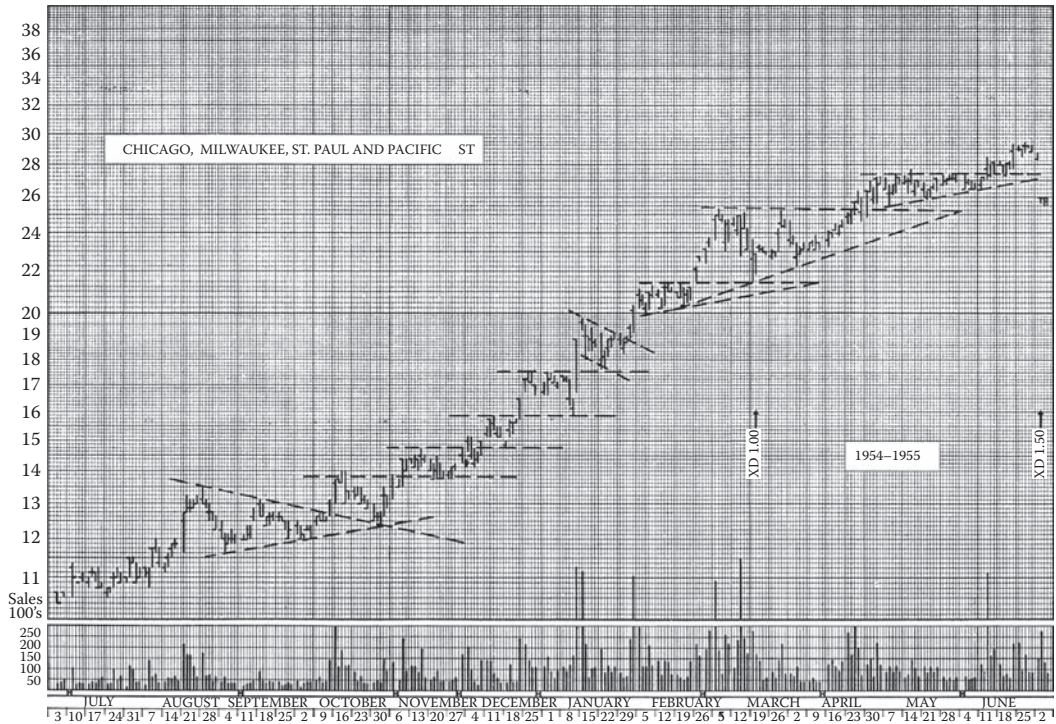


Figure 37.13 The 1954–1955 advance in Chicago, Milwaukee, St. Paul and Pacific is an object lesson in Bull Market techniques. Where would such a trend (of which there are many similar cases) leave the man who sells just “because he has a good profit,” say at 15, or who feels “17 is too high a price”?

Here is a chart worth considerable study because it exemplifies a great many features of the “ideal” uptrend. In this full year of advance, there is no point at which even a tyro technician could find reasonable cause for anxiety or justification for selling the stock. What is more, we should not overlook the tax advantages of long-term gains.

In August and September, we have a perfect example of the Symmetrical Triangle as a Consolidation. The volume is typically heavy at the start of the pattern and shrinks to almost nothing as it progresses. The breakout volume is decisive. The reaction after the breakout, also on lower volume, as it should be, runs right back to the apex, the “cradle point” that is nearly always a strong Support on such a reaction.

Now follow the action from here; the two days of higher volume in the early November rally represent the penetration of the previous Minor Top, and the end of the rally, respectively. The reaction comes back to the previous top.

The December rally is marked by heavier volume when the November top is exceeded, and again, to a lesser degree, at the end of the move. Once more there is a reaction, this time to the November top.

A fast move near the end of December repeats the same price and volume action, and it is followed by a typical low-volume reaction to the early December top. (This is becoming monotonous, but it is important. You are seeing here a long-term demonstration of Bullish technical action.)

Next, we have the January breakout. How far would you expect its Minor Reaction to go? Would you be surprised if it found Support at the level of the three little Tops formed early in the month at 17 1/2?

The following advance drives through the 20 level, and, in a series of small fluctuations, forms an Ascending Triangle. By the end of February, another new high has been established. Can you estimate where to look for support on the reaction?

Figure 37.13 (Continued) Now we see the formation of the second Ascending Triangle (notice the relatively low volume), which is broken on the upside in a burst of trading activity toward the end of April. The next reaction comes back to the support of the former Tops as you would expect. Once again, an Ascending Triangle is formed, and you will see how the volume dries up throughout this pattern, coming to life emphatically on the breakout on Wednesday, June 8.

Many students, on first seeing this chart, remark, "Well, the trend wasn't broken until Tuesday, June 21." Actually, no break occurred on that day. The stock simply went ex-dividend \$1.50, which, as you will see if you adjust the price by that amount, merely brings it back to the Support at the top level of the April–May Ascending Triangle.

It is inconceivable that any such regular series of Bullish Patterns could appear throughout a full year of trading in a stock "by accident." This is part of the normal mechanism of the market, representing the judgments, opinions, fears, hopes, and trading tactics of thousands of traders and investors. It should be added, however, that it is not often that one sees such a long and "perfect" Major Advance as this. Normally, there are interruptions, distortions, or Secondary Reactions from time to time.

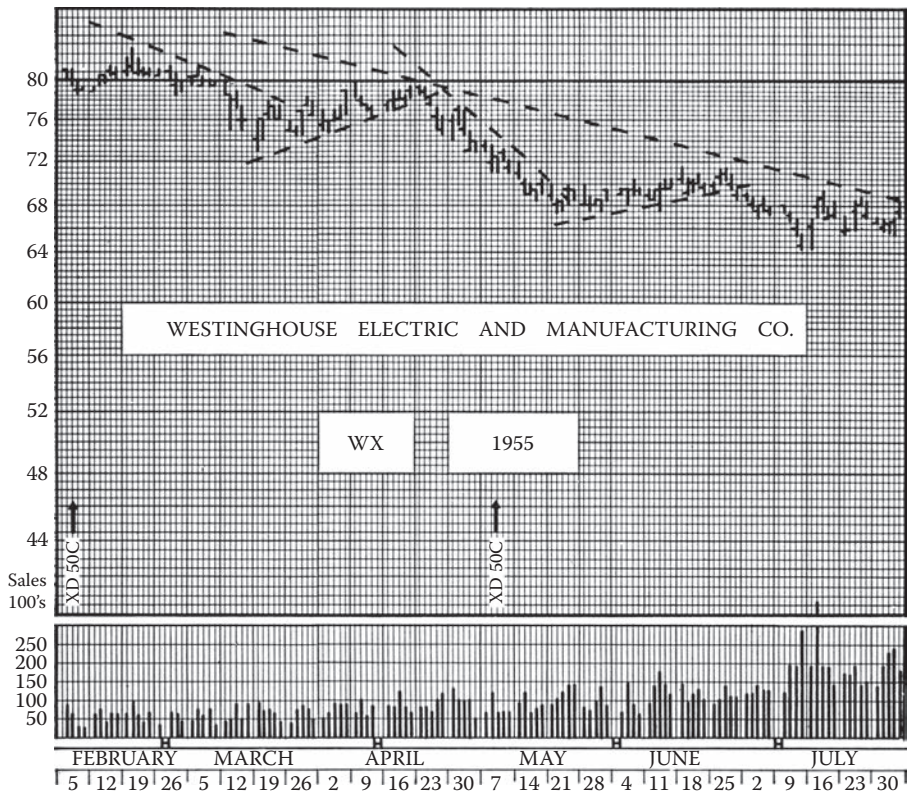


Figure 37.14 Does it require second sight to perceive this is a Bearish stock? If you were keeping a chart on Westinghouse Electric and Manufacturing, wouldn't you have recognized, long before the end of the period shown above, that the trend was down, not up?

It is one of the great delusions of the market that the stock we own must be "good." As prices decline, the price-dividend ratio, based on past history, will improve. Additionally, the price-earnings ratio likewise will look continually better. Investors will begin to speak of "averaging their cost" by putting more money into a tumbling stock (instead of looking for something going their way). They will talk endlessly about improved outlook, new products, and a forward-looking management; they will prove to you it is selling "below its true value," whatever that may mean. They will bend every effort to establish what is going on before their eyes is not true; that the very weak-looking stock is actually strong; that the American public is making a great mistake and is misjudging this stock; that the tape is wrong because they must be right.

Nevertheless, values in the market are determined democratically and, by and large, probably represent the best composite appraisal you can find. A move like this is not meaningless, and it is not possible today to attribute it to the machinations of a few manipulators. In the chart, we are seeing the reflection of a collective evaluation that cannot be lightly disregarded. Westinghouse reached 50 7/8 in November 1956.

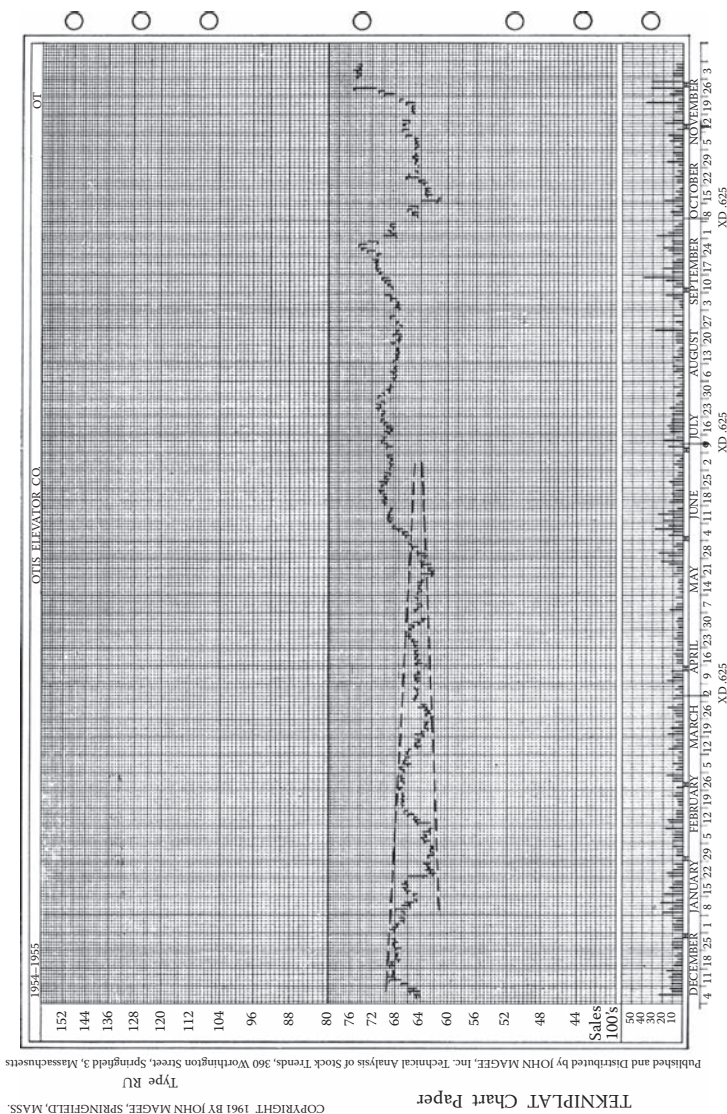


Figure 37.15 A typical stock chart on TEKNIPLAT™ charting paper. Allowing for ex-dividends, “OT” never significantly violated the apex of the Triangle. The advance ultimately added 60% to the value of the stock. This chart, in its long, mostly sideways movement, is a good example of the importance of making allowance for the ex-dividend drop in the price. During the first five months shown, we see an almost perfect Symmetrical Triangle. The first critical point would be on the slight breakdown in the middle of May. The lower border of the Triangle was violated just a trifle, even if we had allowed for the 62 1/2¢ March dividend. If one had sold the stock here, who could blame him? No great or immediate harm would have been done. However, an experienced technician might have taken into account the insignificant volume at this point and waited a bit, with a stop at, say, 60. (See the somewhat similar situation in the chart of “LA,” Figure 37.6.) If “OT” had been held, the volume pickup on the rally would have shown the trend had not yet reversed itself. The second critical point came in late September and early October, at the time of President Eisenhower’s illness. However, if we allow for the two dividends that went ex in July and October, the break did not violate the May Bottom. Furthermore, it was on relatively light volume. If the stock was still held, there was no valid reason for selling on this decline. From here on, breaking upward sharply from the October–November Island, “OT” resumed the Major Advance interrupted by this long period of Consolidation, and advanced to the equivalent of over 100 (adjusted for two-for-one split) in 1956.

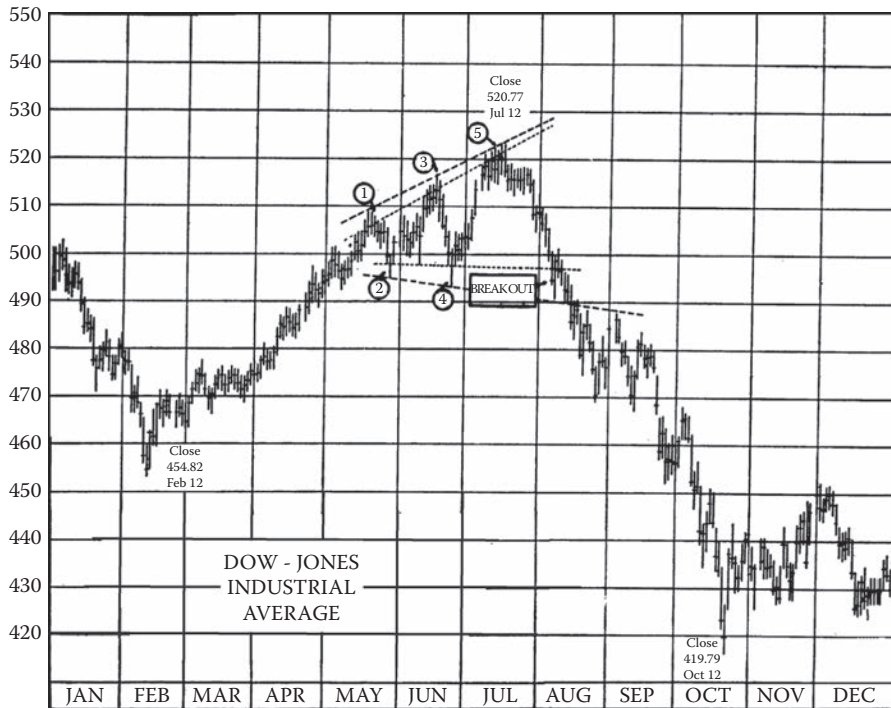


Figure 37.16 The Broadening Top in the Dow-Jones Industrial Average that formed in May, June, July, and August 1957. Although Broadening Tops have appeared many times in individual stocks, and, as a rule, have carried out their Bearish implications, such a chart pattern has never before been completed in the Industrial Average. In 1929, on two occasions, there were patterns that began to show Broadening tendencies, but because these were interrupted by continuation moves, about all one can say of them is they may have indicated a growing technical weakness in the market.

The 1957 situation, on the other hand, was very definite and was fully completed. During the early stages of the pattern, several of our friends wrote, calling attention to the possible Broadening Top, among them Charles E. Carden of Fort Worth, TX, who has handled Dow Theory comment and analysis for the *Fort Worth Star Telegram*. The chart shown in [Figure 37.16](#) is adapted from one of Mr. Carden's charts and is reproduced with his permission.

The first significant point after the February 12 Bottom was the Minor Peak of Tuesday May 21, marked (1). The Minor Decline from this point on Tuesday, May 28 (2), was quite normal, as was the renewed advance to Monday, June 17 (3).

The first sign of a broadening tendency was when the Average closed on Monday, June 24 (4), below the May 28 bottom. However, this by itself did not indicate a Reversal. The advance was resumed, and surmounted the May 21 and June 17 Minor Tops, reaching a high closing figure of 520.77 on Friday, July 12 (5). The Broadening picture was now quite evident, and the completion of a Broadening Top required only a close below the June 24 Bottom.

On Tuesday, August 6, the Industrial Average closed decisively below the June 24 Bottom, signaling the completion of the Broadening Top. This was an indication of Major weakness, a warning not to be taken lightly.

The Broadening Top, as we have pointed out previously, is an indication of a wildly gyrating market, a market without leadership or definite trend. The presumption is that heavy distribution is going on under cover of the rallies and the breakout move is seldom a false one.

Figure 37.16 (Continued) Since we are dealing with an Average rather than a single stock, we would consider *any* closing below point (4) after the peak at (5), regardless of how slight the margin might be, would constitute a valid breakout, because Averages are less sensitive than individual stocks, and it is customary to consider even slight penetrations at signal points (as in Dow Theory) as perfectly satisfactory. You will notice also that, although it would be possible to draw the Broadening Top through the extreme ranges of the price, as we have done with the wide-dashed line, we have used the closing prices as marked by the narrow-dashed line. This, too, is in line with Dow Theory practice, where only closing prices are considered.

The implication of the pattern here was Bearish for the “market-as-a-whole.” As might be expected, a majority of stocks showed weak patterns of trends at this time. As always, however, it was necessary to examine each stock separately on its merits, because, as we will show in the following pages, not all stocks behaved alike even in this extremely weak market situation. Compare the broadening top from 1999 to 2000 (Figure 37.17).



Figure 37.17 The Broadening Top in the Dow in 1999–2000. If repetition is the heart of pedagogy, the reader may die of heart disease with looking at the Dow Broadening Top, especially if he was long at the time and either disregarded the signs or was not educated as to their significance. The lesson is always the same: bad news is on the way. The numerous technical aspects of this historic market top are discussed at length in other views of the Dow taken at this time. Remember, this time it is different. The market paradigm has changed, and so on and so on. ... Those who listen to fools will be fooled.

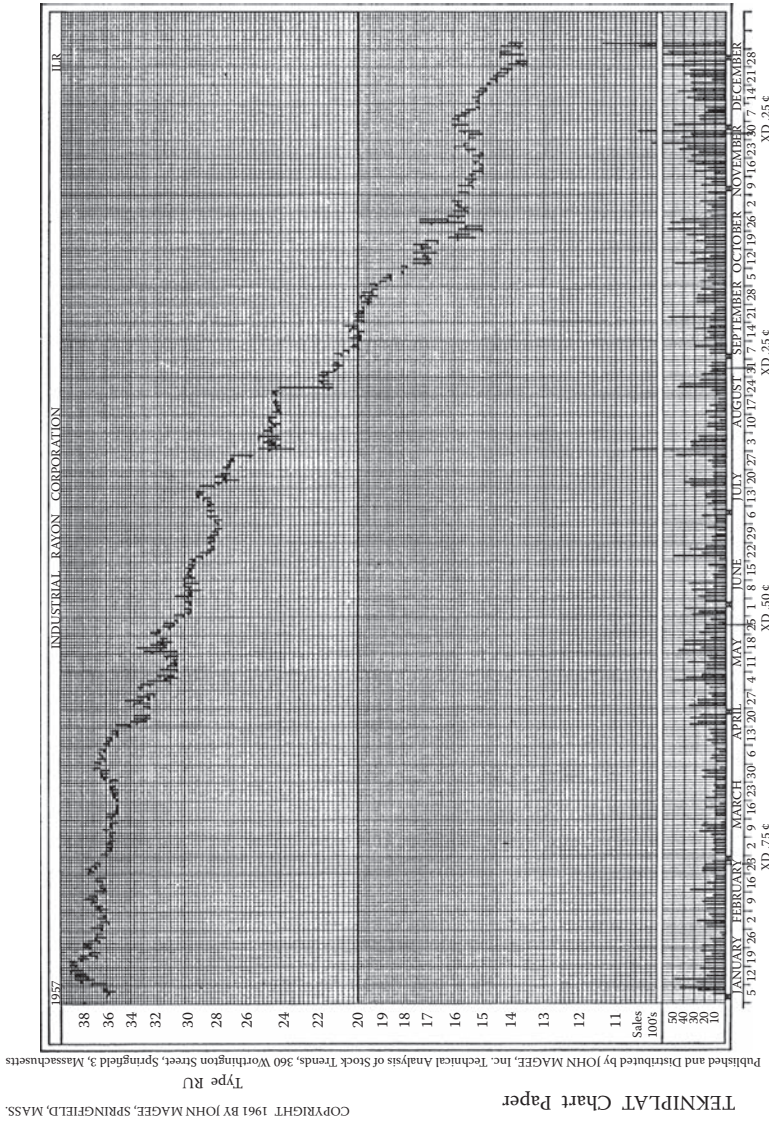


Figure 37.18 1957 Bearish Trend in Industrial Rayon. At no time did this stock show significant strength.

Averages do not tell the whole story. Each stock has to be considered on its own merits. Long before the formation of the 1957 Broadening Top in the Industrial Average, Industrial Rayon was moving down in a Major Decline. You will find many cases in which it is difficult to "see" what a stock is doing or to determine its Major Trend, but in such a situation as this (and this is not a rare case), it is perfectly obvious that the trend is down. Although there were a number of Minor Rallies and Consolidations during the decline, the entire pattern was so obviously part and parcel of the same big decline that no one who was even slightly familiar with typical stock behavior would have been tempted to buy the stock, even to cover shorts.

On Monday, July 29, there was a sharp downward break with a gap on climactic volume. This would have suggested the probability of a Minor Bottom, and for three and a half weeks, the stock did stabilize at around 24. But even during this Consolidation, the continuing weakness showed up on the small Descending Triangle that was formed, and ultimately on Wednesday, August 21, the price broke sharply to continue the Major Decline.

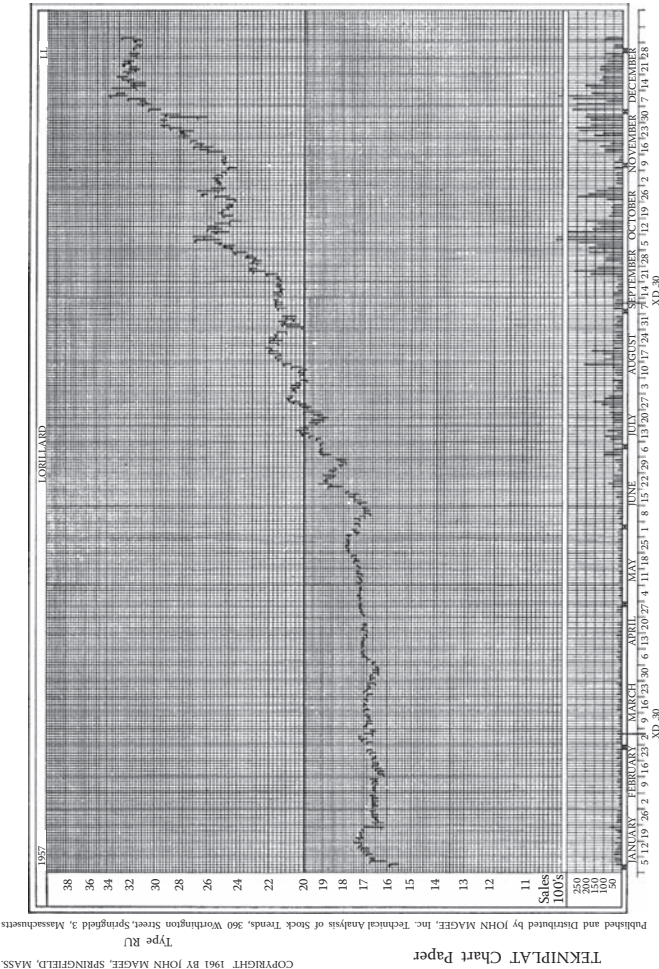


Figure 37.19 1957 Bullish Trend in Lorillard. Although most stocks declined in 1957, there were a number of strong issues like this one that appeared to be totally unaffected by the general pessimism.

Averages do not tell the whole story. It will come as a shock to many readers, who rightly regard the latter half of 1957 as a Major Bear Market, to see Lorillard making a typical Bull Market Advance. Lorillard moved up from 15L to 34 during the year—and reached 54J during the first three months of 1958. It is hard to believe this chart and the Industrial Rayon chart we just looked at cover the same period, the year 1957.

The majority of stocks did suffer severe depreciation, but there were a good many issues, like Lorillard, which enjoyed a generally Bullish Trend all year. Among the important stocks that moved up consistently in 1957 were American Chiclé, Anchor Hocking Glass, Colgate-Palmolive, General Foods, General Cigar, Grand Union, National Biscuit, Parke Davis, Penick and Ford, Plough, Inc., Proctor and Gamble, Ruberoid, Vick Chemical, Winn-Dixie Stores, and Zenith Radio.

Whatever theories we may have as to the condition of the “market-as-a-whole,” we must always realize we are buying and selling individual stocks. (EN: *Unless we are trading Index Shares*.) We may get a picture of extreme Bullishness or extreme Bearishness in the “general market,” but if this picture conflicts with the clear evidence in a particular stock, we must recognize it is the stock, not the Average, with which we have to deal. We cannot assume a stock “must” follow the Average. Often, it is possible to obtain greater stability and safety by buying a few strong stocks in a Bear Market or by selling short a few weak stocks in a Bull Market, than by attempting to maximize profits with an “all-out” position one way or the other.



Figure 37.20 During the latter nine months of 1961, some well-known market Averages continued to show new all-time highs. However, the Evaluative Index (see [Chapter 38](#)), in this period did not indicate any such overall strength; many stocks were in almost continuous decline for the nine months. These included such important issues as Air Reduction, Allied Chemical, Allis-Chalmers, Aluminum, Ltd., Fansteel Metallurgical, Flintkote, Heyden Newport Chemical, Sperry Rand, Texas Instruments, Trans World Airlines, Universal Match, and many others. At such times, it is best to choose stocks selectively and maintain adequate liquid reserves.

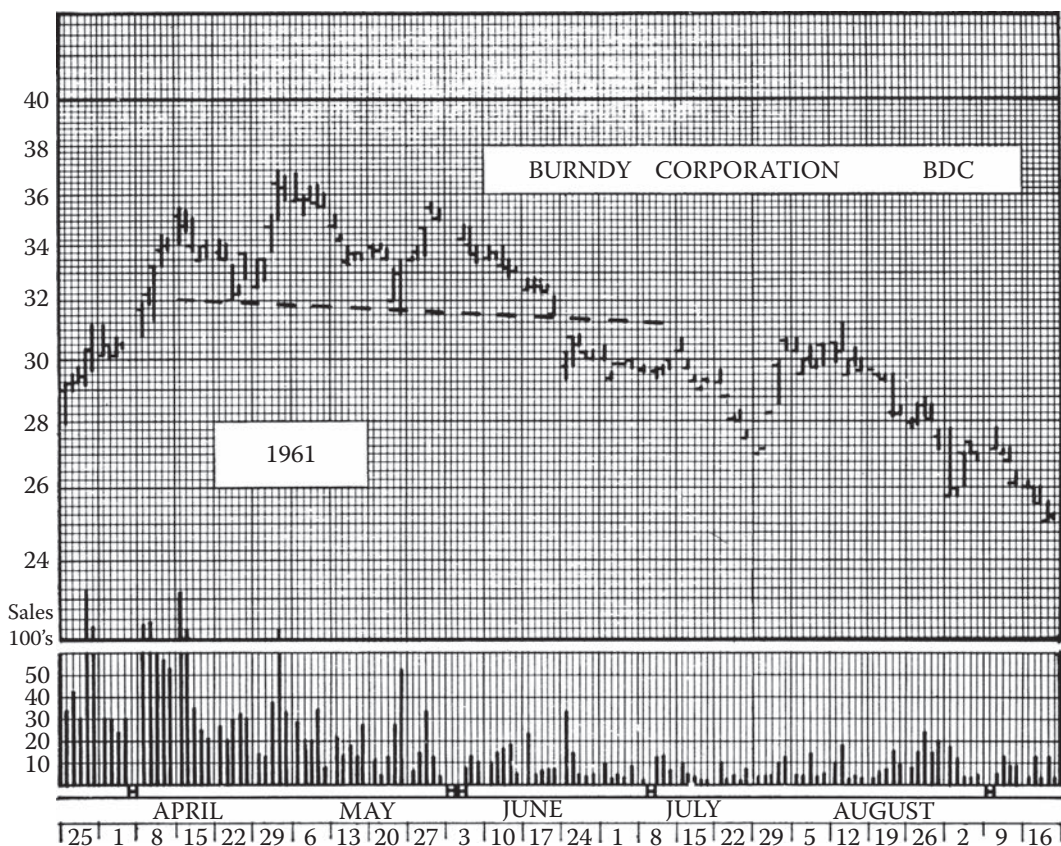


Figure 37.21 A familiar Top Pattern. From the end of 1957 to the spring of 1961, Burndy Corporation moved from below 10 to 37 in a generally Bullish Trend. The advance accelerated sharply on the postelection rally of late 1960 and early 1961. However, with Burndy, as with many other stocks, the rally ended in the early months of 1961. Here, we have not only a perfect example of the Head-and-Shoulders Top in the price action, but we also have the typical volume confirmation. The early April rally was on heavy volume. The rally in the last week of April was on somewhat-disappointing volume, although a new high was made at that time. We have a definite increase of volume on the retreat from this peak, and practically no enthusiasm in the final rally of the first week of June. The breakdown on Monday, June 19, accompanied by heavier volume and a definite gap in the price track, confirmed the Top Formation. Although Burndy held around the 30 level for a time, and after a further drop recovered to 31, the Major Trend had definitely been reversed. By June 1962, Burndy was selling at 11 3/4.

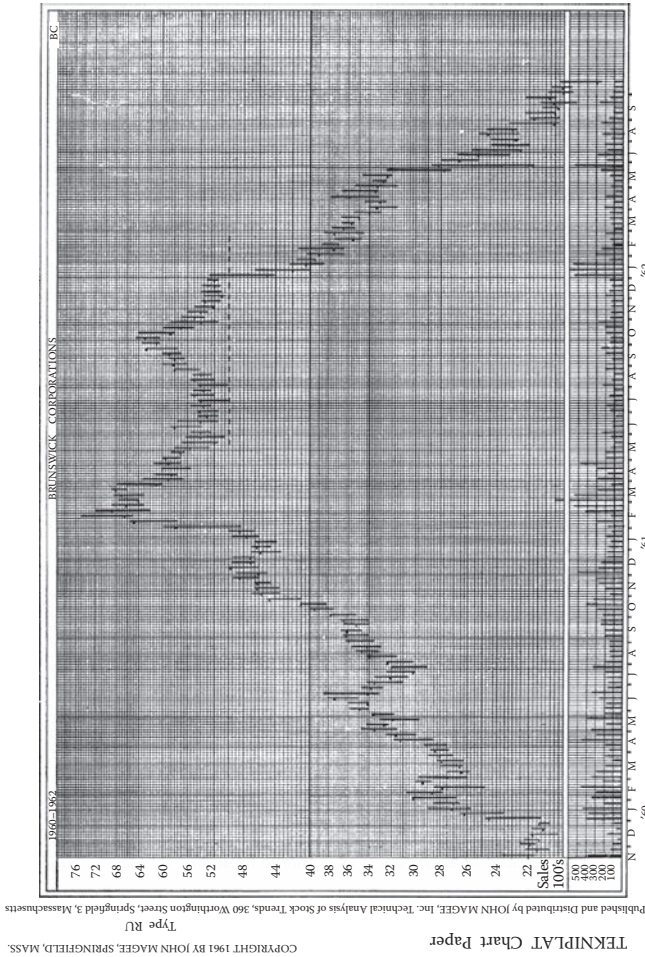


Figure 37.22 Weekly chart of Brunswick Corporation showing the final stages of the long Bull Market in “BC,” the Climactic Top in March 1961, the distributive phase through December 1961, and the ultimate breakdown.

For five years, from 1956 into early 1961, Brunswick advanced in a great Bull Market surge. During this period, the stock was split four times. In the first week of March 1961, terminating the postelection rally, “BC” made a new high on extraordinary volume, but closed the week nearly at the bottom of the weekly range. The One-Week Reversal might well have served as a warning to the market trader.

Assuming, however, the owner of shares in Brunswick was not a trader and was interested in the stock from a long-term point of view, he might have held the stock through the breakdown from the Symmetrical Triangle formed in March and early April. He might have continued to keep his shares through the summer and fall of 1961 and the rally of September and October. If so, and if he had been watching the action of the stock, he would realize the 50–52 level was a critical area. A break through this previous Bottom would represent a serious failure of Support and, certainly, the decisive violation of the 50 level in the first week of January 1962 (with heavy volume) could be recognized as a very dangerous Reversal Signal, calling for immediate sale of the stock regardless of capital gains tax or anything else. Although this move preceded the general collapse of the market by several months, it was a clear technical indication of extreme weakness and extreme danger in Brunswick, regardless of the action of other stocks at that time. If an investor had noted the break but decided to “wait for a rally” to sell his stock, he would have had no chance to get out. Brunswick never recovered, never rallied, and by October 1962 it was selling at 17.

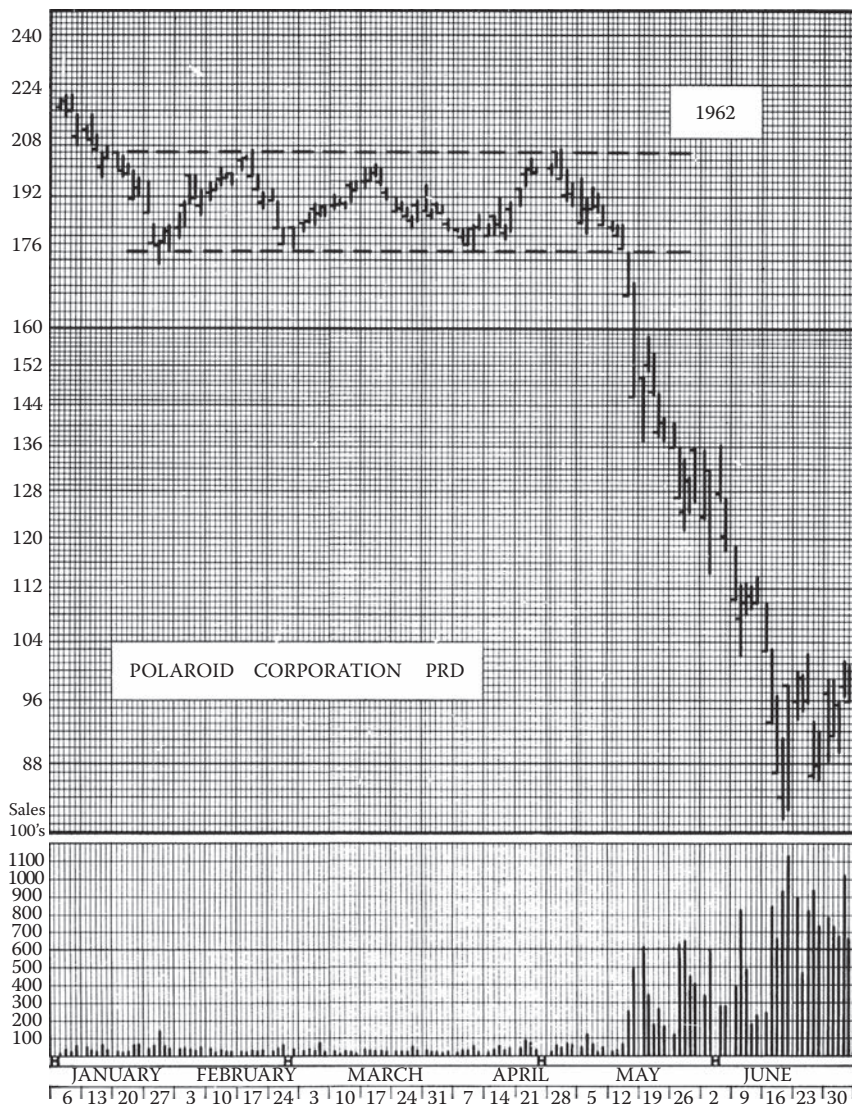


Figure 37.23 A beautiful example of a Rectangle in Polaroid. Notice the low-volume fluctuations between (approximately) 178 and 202. On Thursday, May 10, on the highest volume of that year to date, Polaroid broke Support and plunged to 168. This was a clearly Bearish Move. It would have been fatal to “hold for a rally,” for there was no rally. It can be very expensive to hold onto a stock wishfully when the situation has changed radically, no matter how good it may have looked previously. Note this break came more than two weeks before the “near-panic” of May 28. By that time, “PRD” had dropped 50 points and was headed for still lower levels.

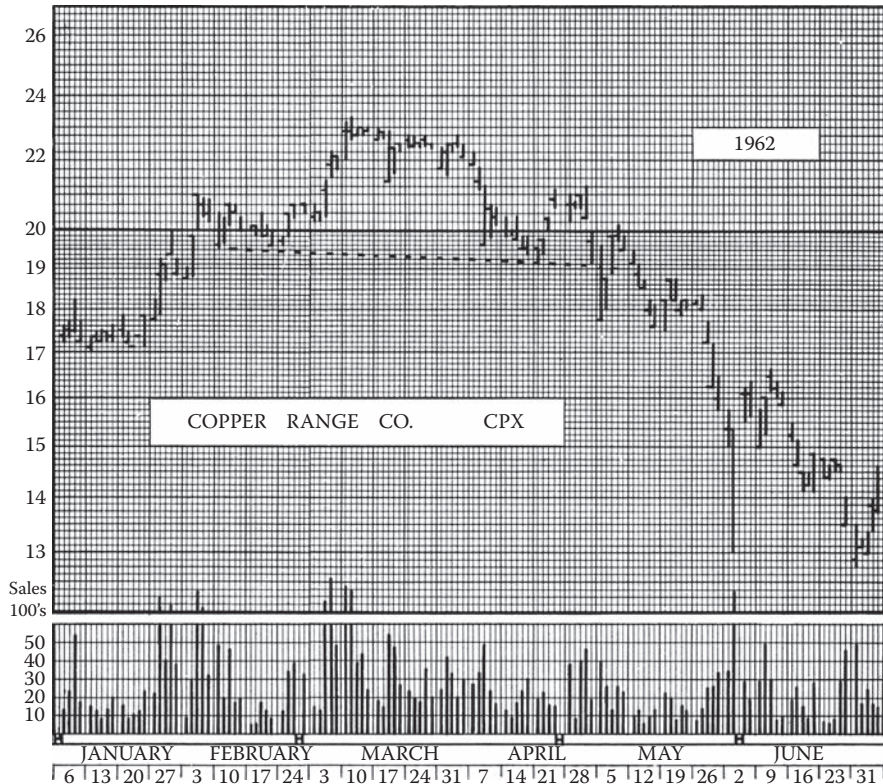


Figure 37.24 At a time when a majority of stocks were already showing signs of serious weakness, early in 1962, Copper Range was making vigorous new highs. Actually, the move did not get far; it never substantially broke above the 1961 Top.

The evidence of weakness in "CPX" did not become apparent until, after the relatively weak April rally, the stock broke through 19 on Monday, April 30, and closed at 17. This was the completion of a well-marked Head-and-Shoulders Top. In this case, there were three days of rally before the downward move really got under way, but it might have been dangerous to count on a rally after the clearly Bearish signal.

Incidentally, this Top Formation was completed well before the precipitous drop of May and June.

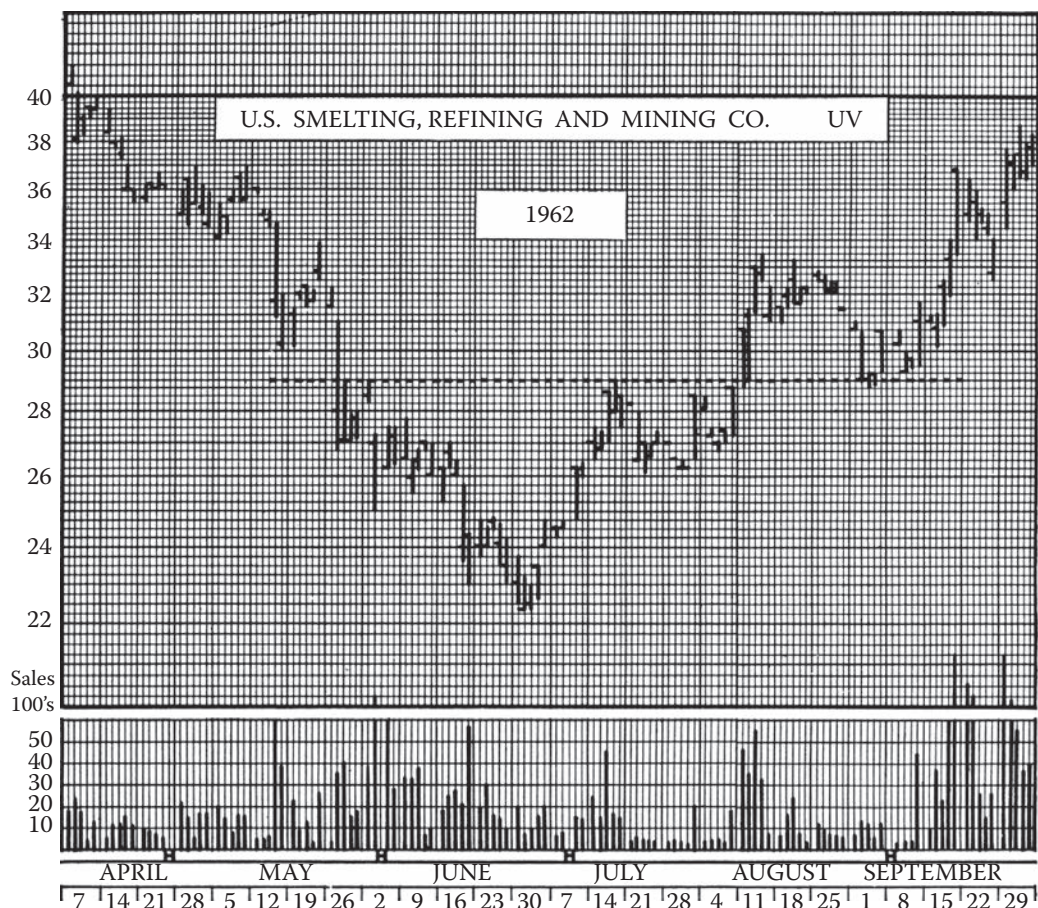


Figure 37.25 Like practically all stocks, “UV” went into a tailspin in the spring of 1962. After the “bad day,” May 28, it continued to slide throughout the month of June. At this point, there started what could be considered no more than a technical rally in a Bear Market. This rally stopped at 29 and was followed by a dull decline lasting about two weeks.

The next move, in the second week of August, was marked by considerable volume, and although there was no obvious, clear-cut pattern, it seemed significant that the 29 level, briefly touched on May 23, May 28, and July 12, was penetrated on August 6.

Whether to regard this August 6 closing as an immediate buy signal, or to wait for the completion of the breakout move and look for an opportunity to buy on a reaction, would be a problem. In this case, it would have paid to wait. Notice the late August reaction came back to the 29 level, where it found Support, and then continued its upward move.

Considering the weakness of most stocks in this period, the action of “UV” is remarkable. The important thing to recognize is individual stocks do not necessarily follow “the main trend” of the Averages.

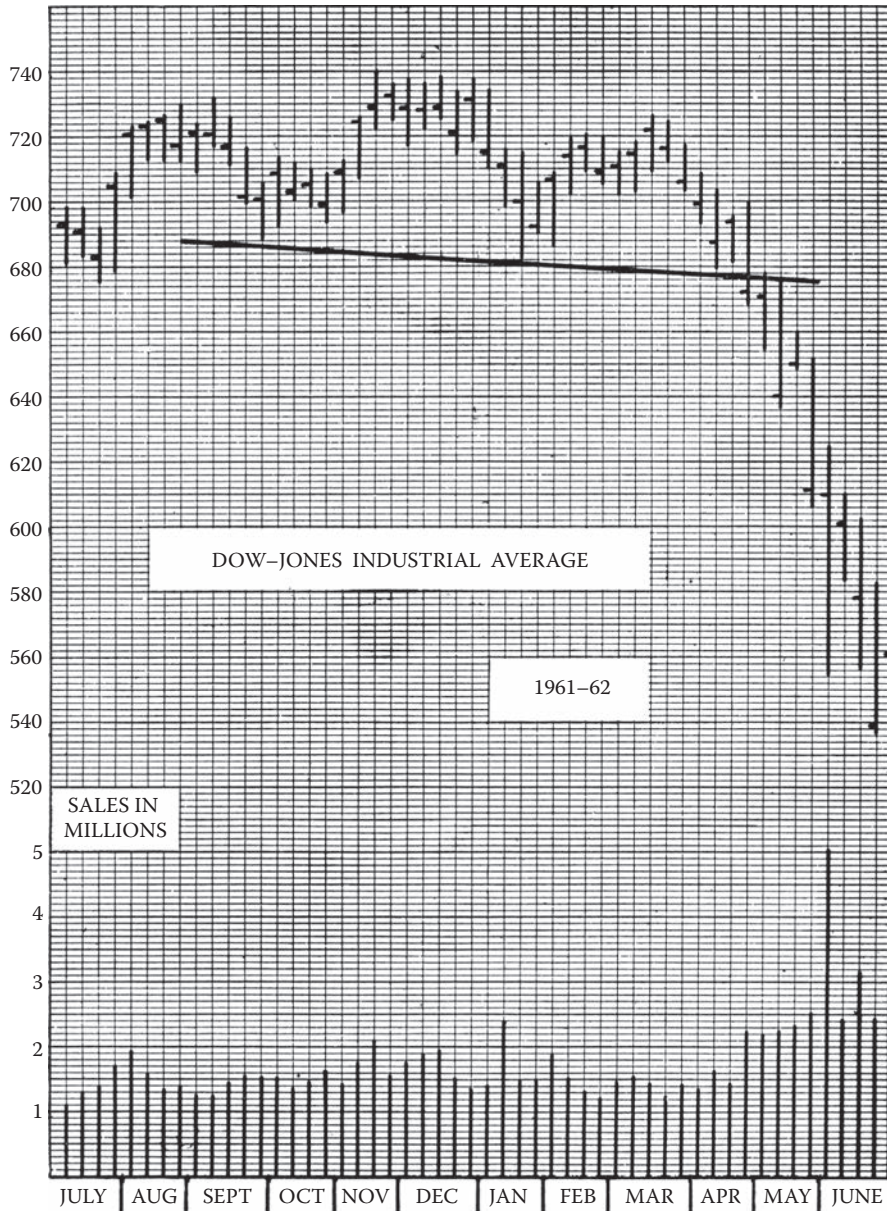


Figure 37.26 Weekly, July 1961 through June 1962. This chart shows the Head-and-Shoulders Top Formation in the Industrial Average that preceded the collapse of April, May, and June 1962. Normally, especially in the charts of individual stocks, there would tend to be heavier volume on the left shoulder. The price pattern alone is sufficient to mark the pattern as a dangerously topsy situation. During the entire period in which this formation took shape, many individual stocks representing important companies were showing Top Reversal symptoms, as might be expected. Note, so far as this Head-and-Shoulders Pattern is concerned, the Reversal Signal is not definite until the neckline has been penetrated.

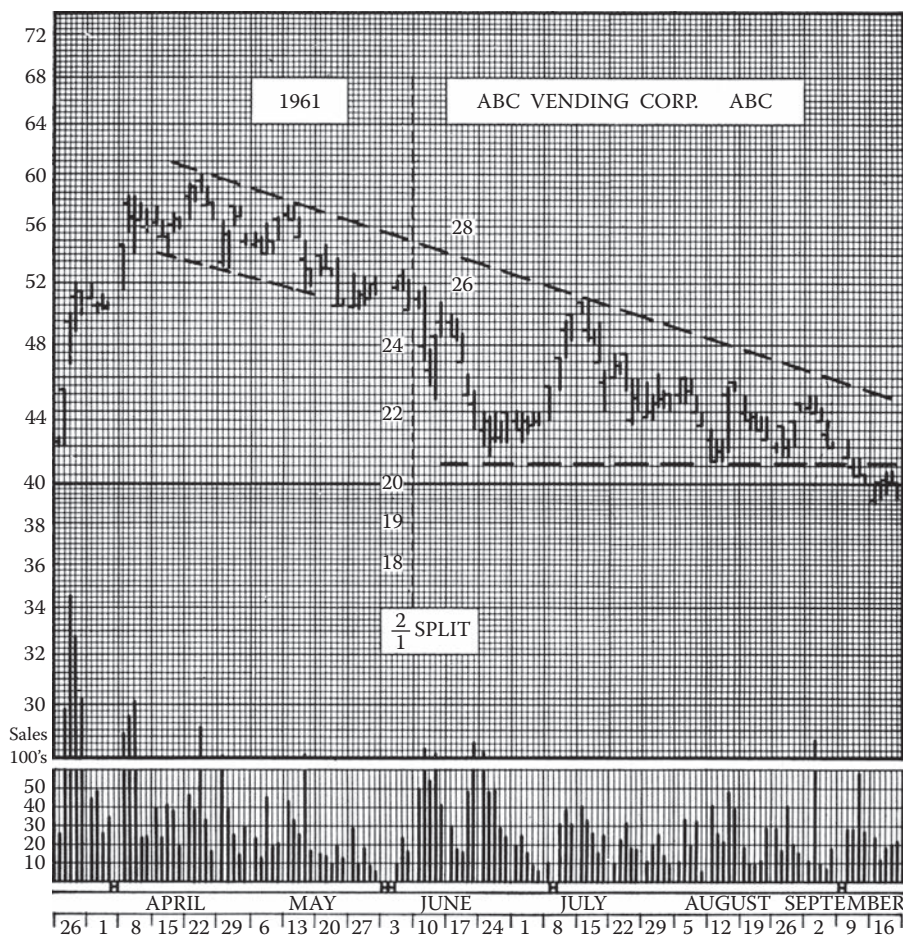


Figure 37.27 Daily, April through September 1961. Here is a rather confusing and complicated chart, but one that contains several points of interest worth a bit of analysis. Notice the beautiful little Head-and-Shoulders Top in April and May, especially the volume weakness on the final rally before the downside breakout. Notice also this stock was split two-for-one in June, but such a split does not materially affect the technical action of the stock, except because there are now two shares of stock (at half the market value) for each share of old stock, there may be some increase in the average number of shares traded per day. Notice also that once the downtrend was established, the rallies (especially the mid-July rally) do not penetrate the trendline drawn through the April and May peaks. This trend continued down for more than a year after this, reaching a low of 11 1/4 in October 1962.

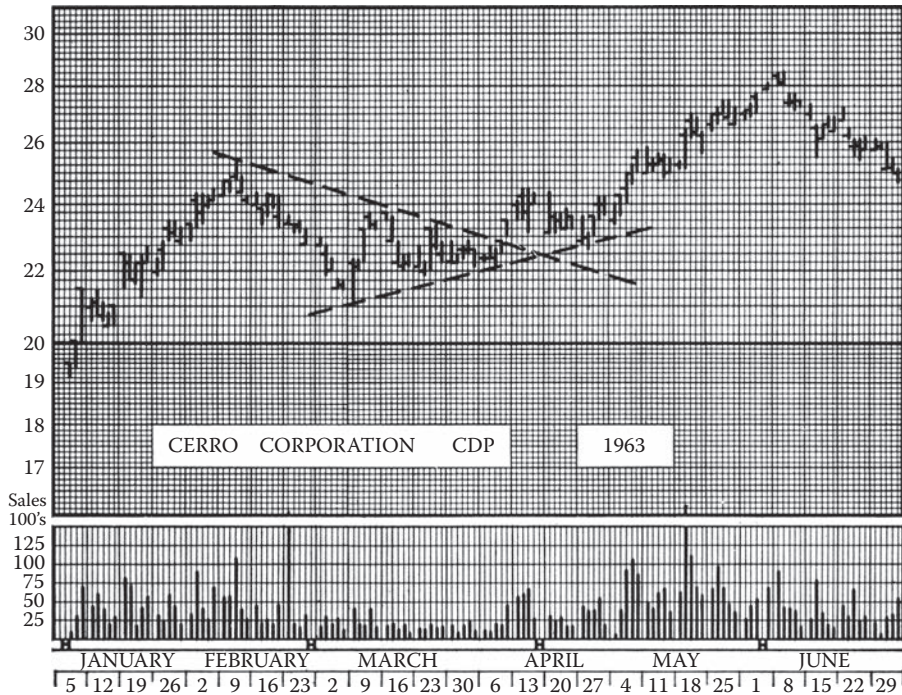


Figure 37.28 Daily, January through June 1963. Here is a good example of a Symmetrical Triangle as a Continuation Pattern. Triangles of this (Symmetrical) type may mark Consolidations in a Major Trend, or they may constitute a Reversal Formation. The characteristics in either case are an active move to the first turning point of the Triangle, and then, generally diminishing volume as the price fluctuates in a narrowing pattern. During this period, it could be said the stock was in *both* an uptrend, marked by the lower boundary of the formation, and a downtrend, indicated by the upper boundary. Notice the increase of volume on the breakout, which, in this case, was on the upside. Also, notice the reaction to the “cradle point” defined by the intersection of the two boundary trends of the Triangle. The advance of the stock from April to June measures just a little more than the height of the open side of the Triangle. The attainment of this “objective” does not necessarily mean the termination of the Major Trend, however, and by August 1963, Cerro had reached 33 1/4.



Figure 37.29 XA. Daily, March through August 1963. Here is a good example of an Ascending Triangle, in which the rallies advance repeatedly to a given level; the reactions find Support at gradually higher points. Such a pattern normally indicates a potentially Bullish situation in the making, just as the reverse (Descending Triangle) implies a Bearish tendency. Notice the higher volume on the various peaks near 22, and the very high volume on the breakout move in August. If any further evidence of the strength of this move was needed, the Breakaway Gap at the opening, Monday, August 12, would supply it. After a breakout of this sort, it would be quite normal for the stock to suffer some profit-taking reaction, usually on light volume, and such a reaction might run back to 22 or even a little below this without altering the essentially Bullish nature of this picture.

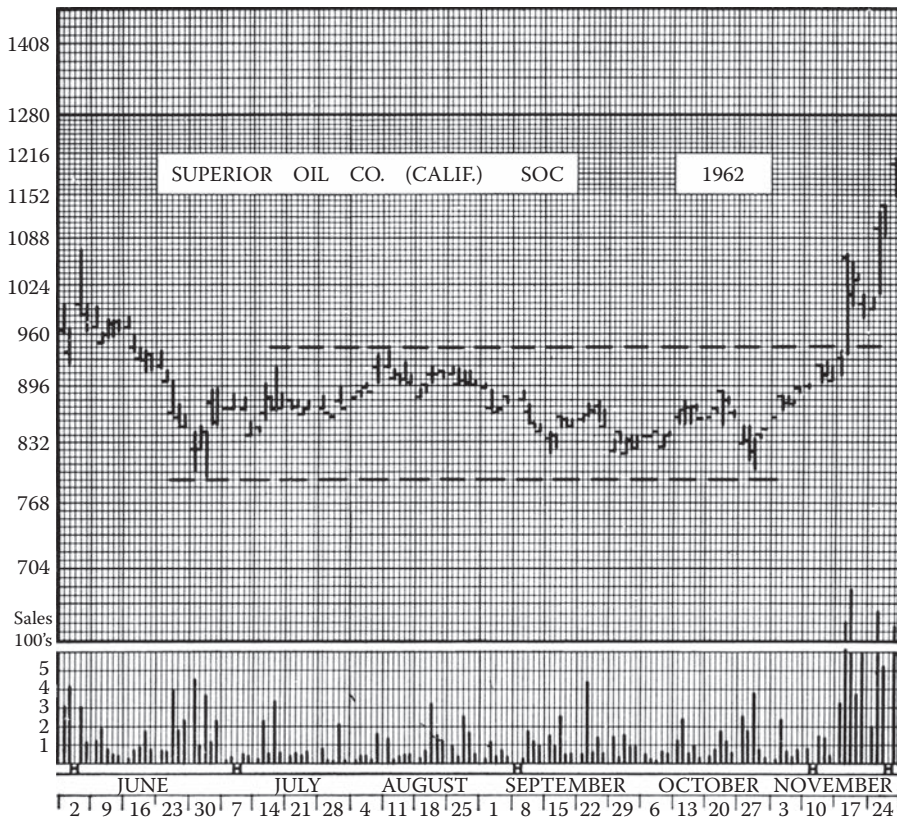


Figure 37.30 SOC. Daily, June through November 1962. Before commenting on the November breakout here, we should call attention to the fact "SOC" was one of the stocks that held up fairly well during the Cuban crisis in October 1961 and did not make a new low under the June bottoms. This chart picture is an excellent example of a Double Bottom. It is not necessary for the two Bottoms to be at exactly the same level if they are reasonably close. The important thing is the stock has found Support once, has rallied, then declined again, and has found Support at nearly the same point. The Bottoms should be some distance apart; there should be at least six weeks between them, preferably more. Also, the rally between them should be definite and should amount to at least a 15% gain at its peak. The formation does not acquire significance as a Major Bottom Pattern until the level of the top of the rally is penetrated on substantial volume. This penetration took place on Tuesday, November 13, and from that time continued in a Major Bullish Trend, reaching 1559 in May 1963, an advance of more than 500 points from the close on the day of breakout.

Double Tops have an opposite significance; they are similar to the Double Bottoms, but they consist of two tops at approximately the same level, separated by some weeks or months, and with a decline between them, which must be penetrated to validate the Top Formation.

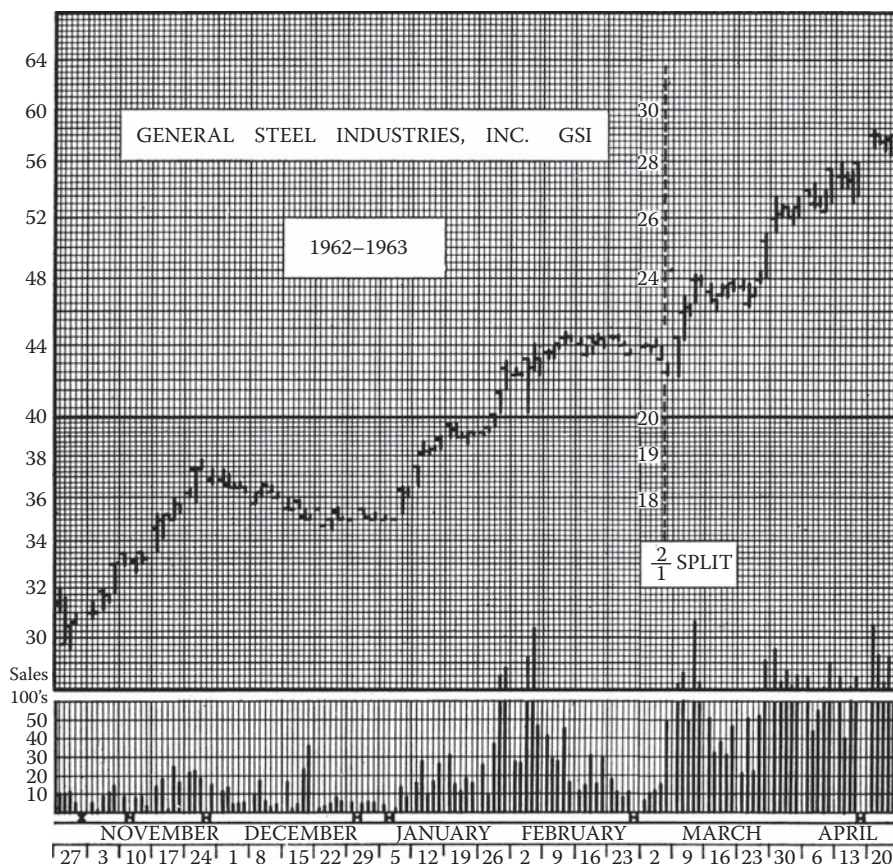


Figure 37.31 Daily, November 1962 to April 1963. To the average person unfamiliar with the usual behavior of stocks in the market, the price fluctuations appear meaningless and entirely fortuitous. If they are aware of general trends lasting months or years, they are often inclined to consider only the trend of “the Averages,” and are not conscious of the fact many stocks may be making large advances at the very same time that others are sliding lower and lower. It is not always possible to lay a straight-edge ruler along the trend and show \ it makes a perfect straight line (although this does sometimes happen); however, as in the case of General Steel Industries, there is no question the advance is fairly consistent over a long period of time, barring the relatively unimportant reactions, Consolidations, and so on, along the way. You will notice, too, the two-for-one split in early March did not materially affect the upward trend except to show somewhat more volume, as might be expected with a greater number of (new) shares. For a contrasting (downside) trend, see the chart of Avnet Electronics, [Figure 37.20](#).

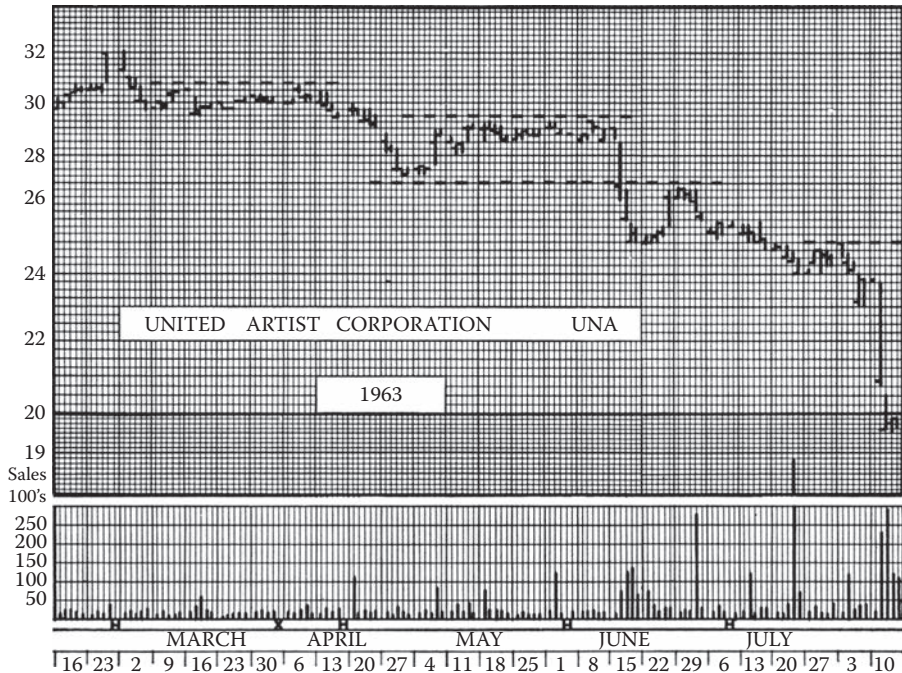


Figure 37.32 Daily, February to August 1963. This is an interesting study of Support and Resistance phenomena. Incidentally, it is also an example of a Bearish Stock (and not the only one by any means) in what was generally considered a Bullish Market, during the spring and summer of 1963. We would point out several rallies to 31 in March and April, and the breakdown in early May. In May and June, the stock rallied, but it stalled at about the level of the March low. Then there was another drop, and in the rally, this time came back to the late April low. The next drop, in July, was followed by a little rally to the June Bottom at 25. This is fairly typical Support–Resistance behavior. The price level that has been a Support tends to become a Resistance once the Support has been substantially broken. Vice versa, as regards overhead Resistance; after it has been broken, it tends to serve as a Support level.

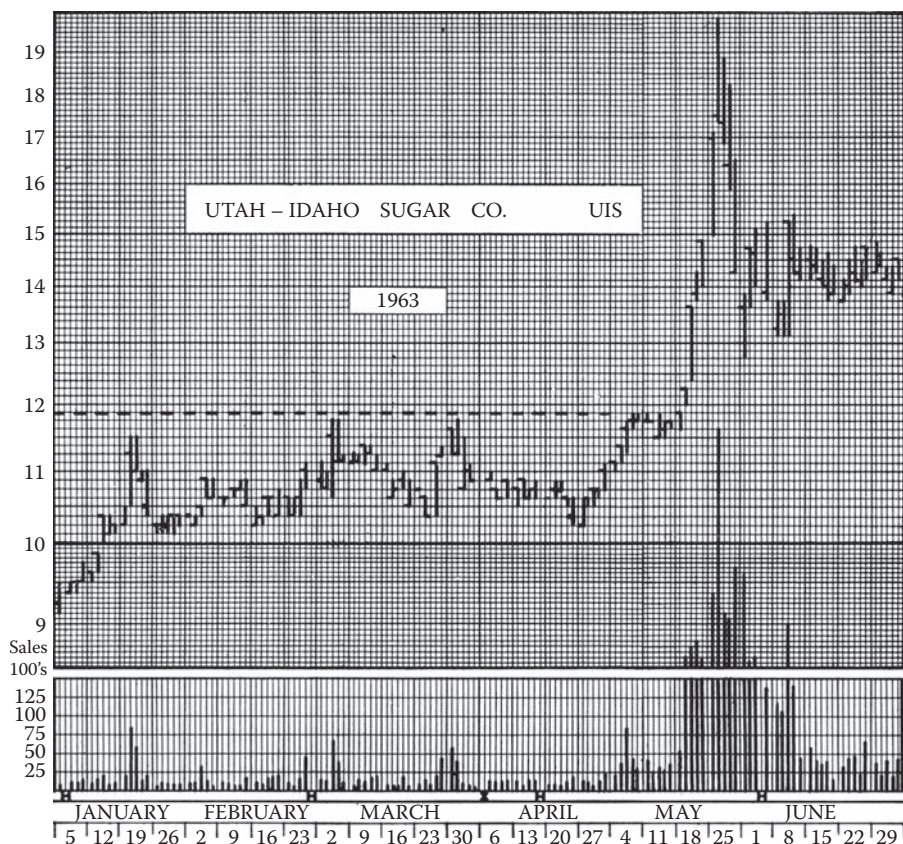


Figure 37.33 January through June 1963. Sometimes a move happens all of a sudden and does not result in a continuing long trend. In this case, it is not possible to say whether the long-term trend will be up or not. The purpose of showing this chart is to point up the remarkable action that can follow a break through an important Support or Resistance Level. You will notice that the entire period from mid-January to Tuesday, May 14, can be regarded as a Rectangle on the chart with Bottoms at about $10 \frac{1}{8}$ or $10 \frac{1}{4}$, and Tops at about $11 \frac{3}{4}$. Notice the increase of activity on the several rallies during the formation. The move, which was a “situational” thing in sugars, affected all sugars in May, and turned out to be somewhat of a flash in the pan. Nevertheless, it was a spectacular one, and a trader with courage and acuity might have picked up this stock as a speculation after the close of Tuesday, May 14. The next five trading days advanced the price from Wednesday’s opening at 12 to the Tuesday, May 21, close at $17 \frac{1}{2}$, an advance of 46%. This is a type of market trading we would not recommend generally; it calls for courage, experience, and the willingness to take a number of small losses to secure one substantial gain. However, the in-and-out trader who observed the action on May 21 and noticed the One-Day Reversal with abnormal volume and a gap could have secured maximum quick profits either by selling his stock at the opening of the next day or by placing a stop-loss order just under the close, say, at $17 \frac{3}{8}$.



Figure 37.34 There are some warning signs in “CDA” in the Minor Breakdowns of late March and early May. What seems especially significant, however, is the nature of the recovery move in May and early June 1965. The two convergent boundaries of the Recovery Trend form an up-sloping Wedge, which has rather definite Bearish implications. If the Wedge had been pointed down, it would strongly suggest the possibility of a decisive upward breakout. Notice on the two days during which the highest prices were attained during this Wedge Pattern, the stock closed near the Bottom of the day’s range. The subsequent history here, the collapse on heavy volume, shows clearly how dramatic a break from this not-too-common formation can be.

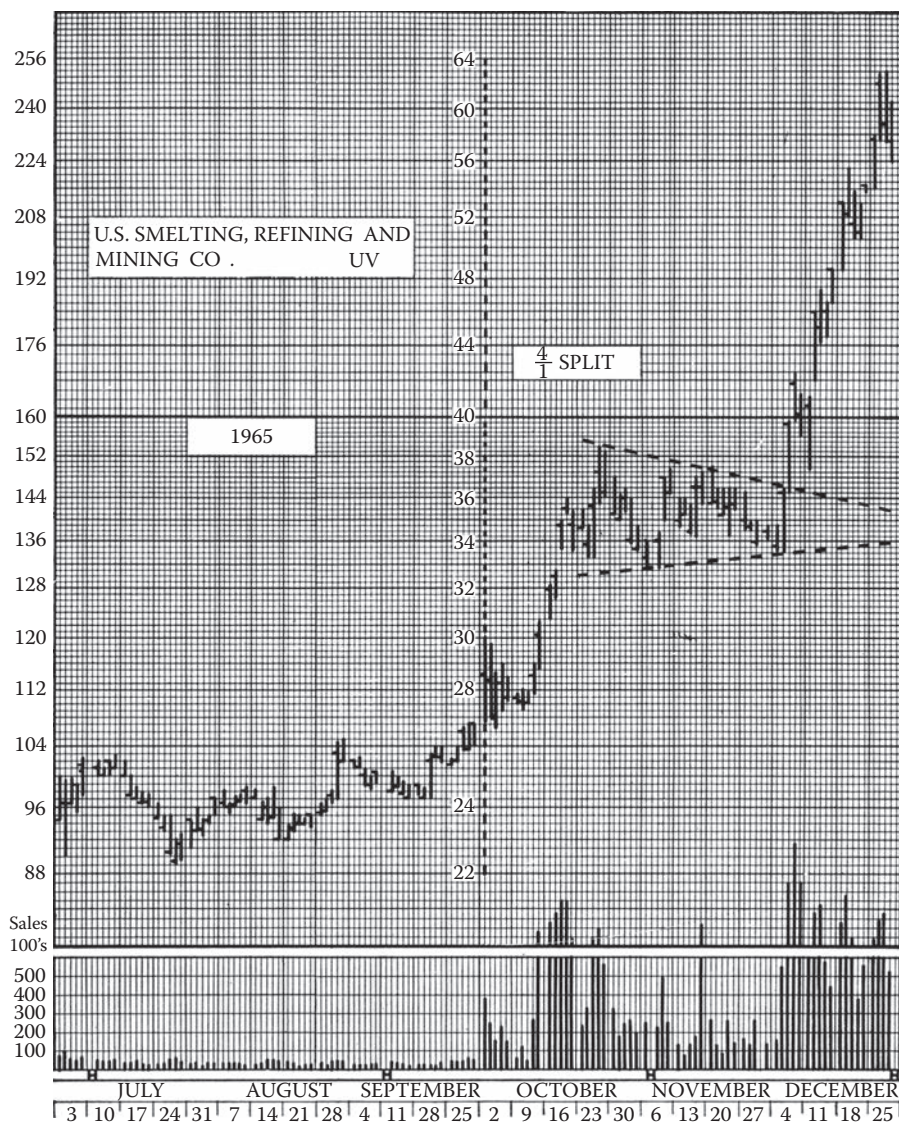


Figure 37.35 Here is a chart that shows several interesting technical features. In July, August, and most of September, “W” was in a period of dormancy. The breakout of September 27 was followed by a week of inaction and then a strong continuation of the move on big volume. Notice the October–November Consolidation, which took the form of a large Symmetrical Triangle. If we draw the upper boundary of this Triangle, and the lower, we see the breakout signaling a continuation of the move, on Wednesday, December 1, was decisive both in price and volume action. At no time during the advance from 28 1/2 to more than 62 was there any indication of potential weakness.

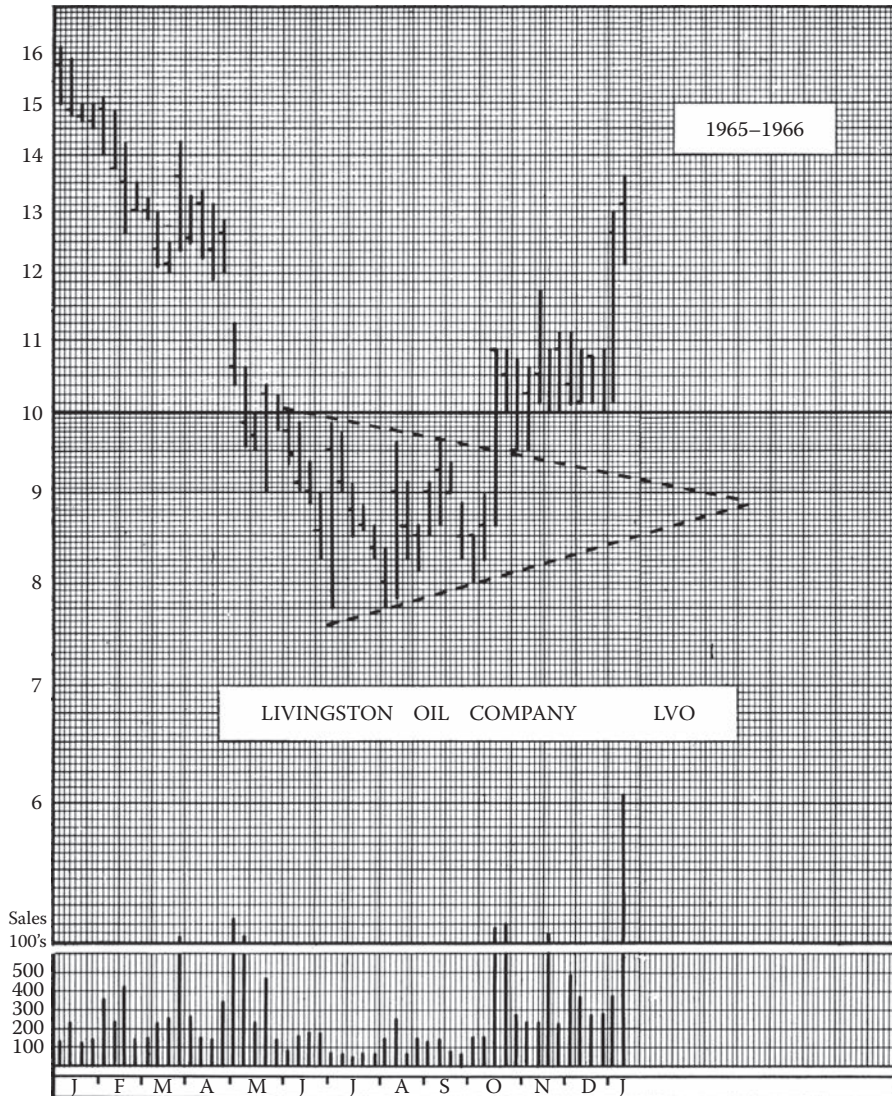


Figure 37.36 The weekly chart of Livingston Oil from January 1965 into January 1966 is a good example of a Major Bottom. Just how weak the stock was during the early months of 1965 can be judged by the clear Downside Gap during the month of May. Also, you will notice the volume on this whole headlong collapse was rather heavy. From July to the middle of October, however, the trading activity “dried up,” and the stock fluctuated in narrower and narrower swings, forming a Symmetrical Triangle. The pickup of volume on the October breakout was spectacular, and an observant investor would have had a “second chance” to buy on the reaction in the first week of November when the stock drifted back to the top of the Triangle.

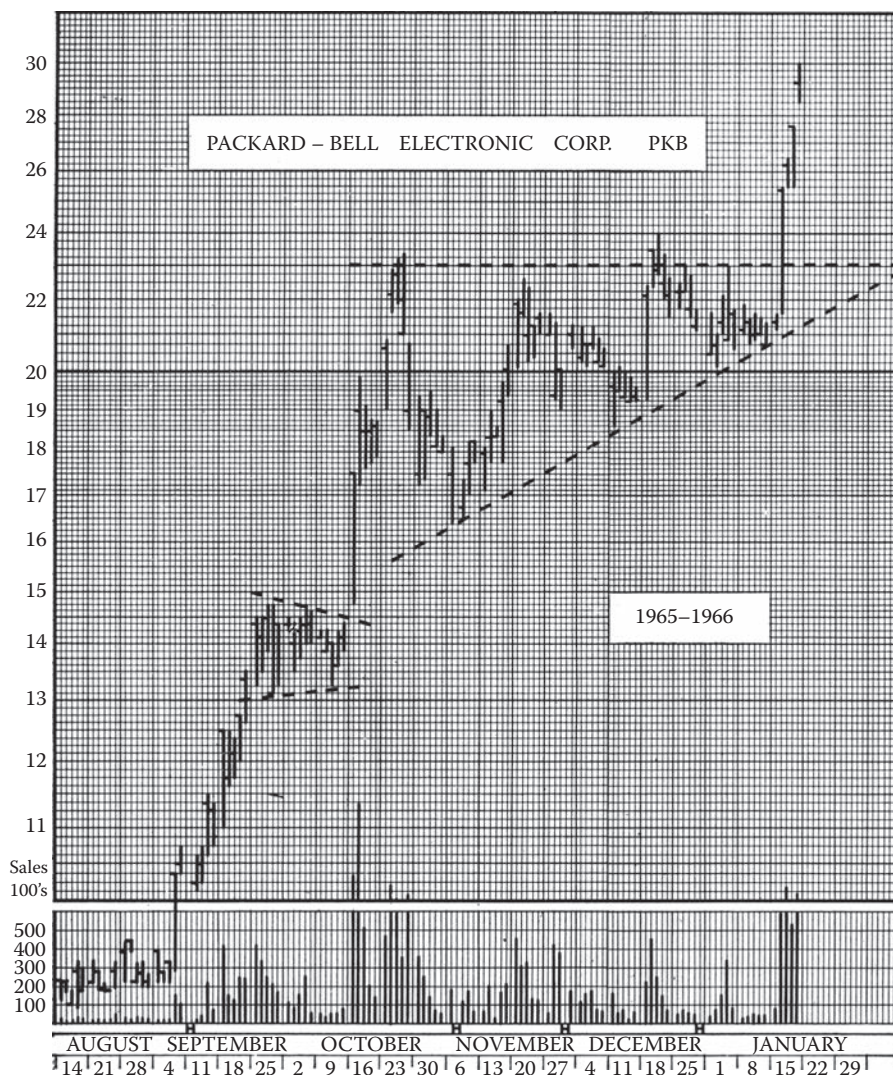


Figure 37.37 Here is a beautiful picture of technical market action in Packard-Bell Electronics from August 1965 into January 1966. The first point of interest is the Flag Consolidation in September and October, a classic example (“The Flag flies at half-mast”) and on the resumption of the up-move, the stock did duplicate the earlier move, and a bit more. (Compare with the 1945 chart of Martin-Parry, [Figure 33.13](#).) Notice the nearly flat Tops and the rising Bottoms from October to January, with generally declining volume (Ascending Triangle), and the magnificent breakout move in the second week of January 1966. In this case, we can see no evidence calling for selling the stock all the way from September into January.

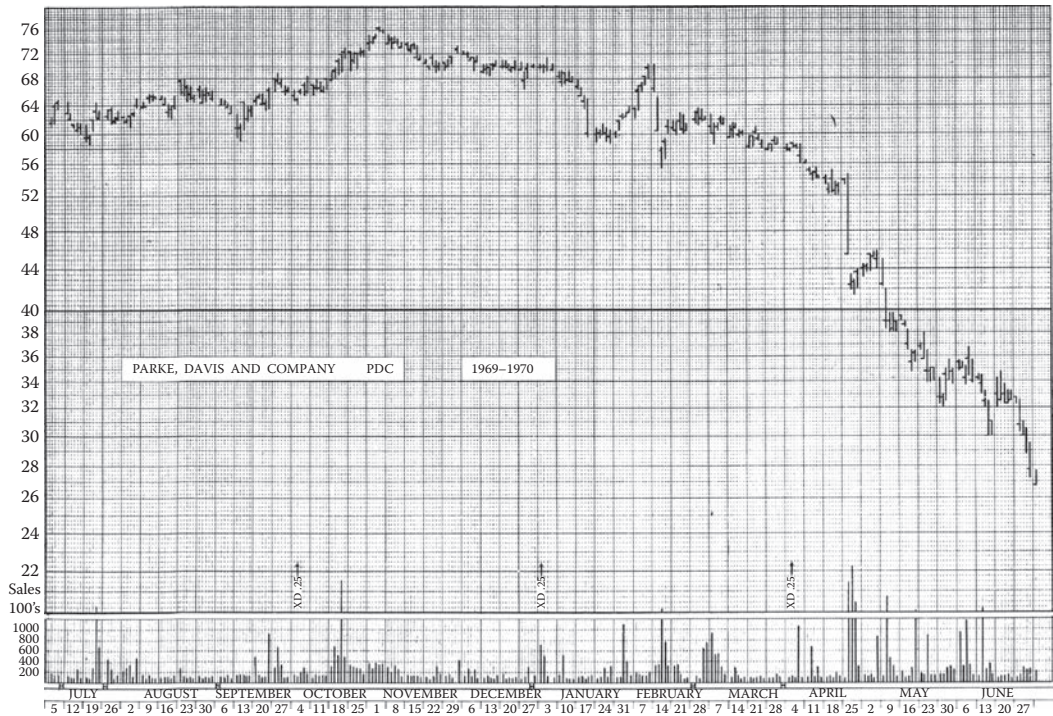


Figure 37.38 This could be regarded as a very flat Head-and-Shoulders Top or as a long Rounding Top. The breakdown through 66 was a warning, and certainly the sharp break below 60 in February was a definitely Bearish signal.

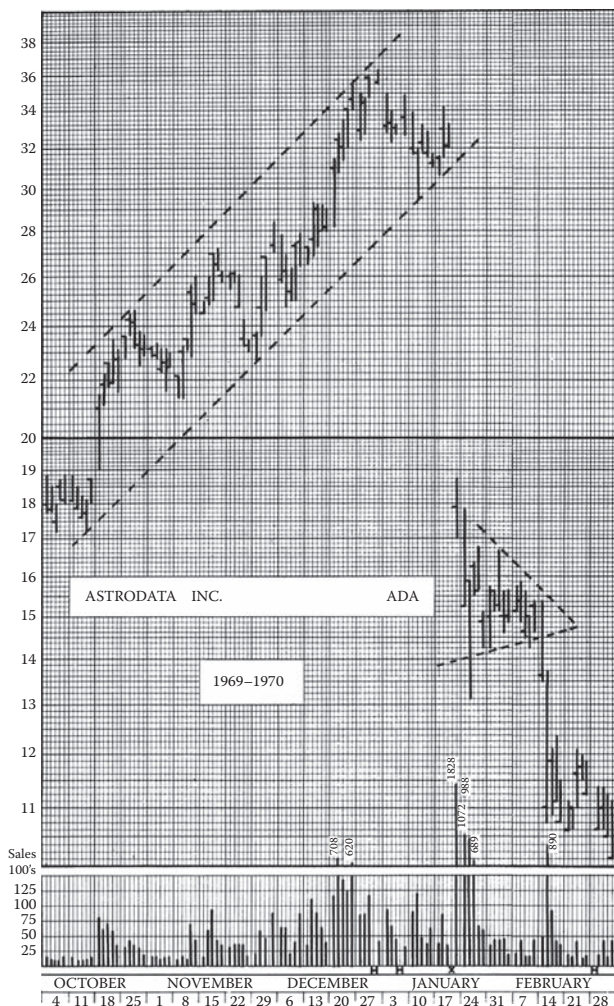


Figure 37.39 A complete collapse in one day, Astrodata in January 1970. Not the sort of action you see every day, or even every month, but it is “normal” in the sense it is a phenomenon we have seen many times in the past and undoubtedly will be seen many times in years to come. When it does happen, it should be heeded—it means trouble. “ADA” was doing well in what appeared to be a typical and perfectly healthy uptrend. After a one-day suspension on January 15, it reopened many points lower and never recovered. Trading was halted in late September. Some readers may remember other downside moves of this nature in the past. In Mack Trucks, in Fifth Avenue Coach, and some may even recall, many years ago, a break like this in American Woolen. Such a break is due to some sudden development or change in company affairs, but it is not necessary “to know the reasons”: the chart speaks for itself. As Lady Macbeth put it (in another connection), “Stand not upon the order of your going, but go at once.” There was a good example of this type of a “Gap Move” in Villager Industries on April 30, 1971, when the stock dropped 42%, from 7 3/8 to 4 1/4 in one day. Such moves as we are discussing here are nearly always on the downside; we do not often see comparable upside gap moves. After this type of break, although there may be brief rallies, the stock nearly always resumes the downtrend, and in many cases, is delisted from the Exchange. Anyone caught holding such a stock should not feel he had made a mistake in buying it, nor should he look for evidence of weakness before the big breakdown, for ordinarily, there is none, however, he should get out immediately to avoid further loss. By way of reassurance, it can be repeated though this kind of collapse is a rather rare occurrence.

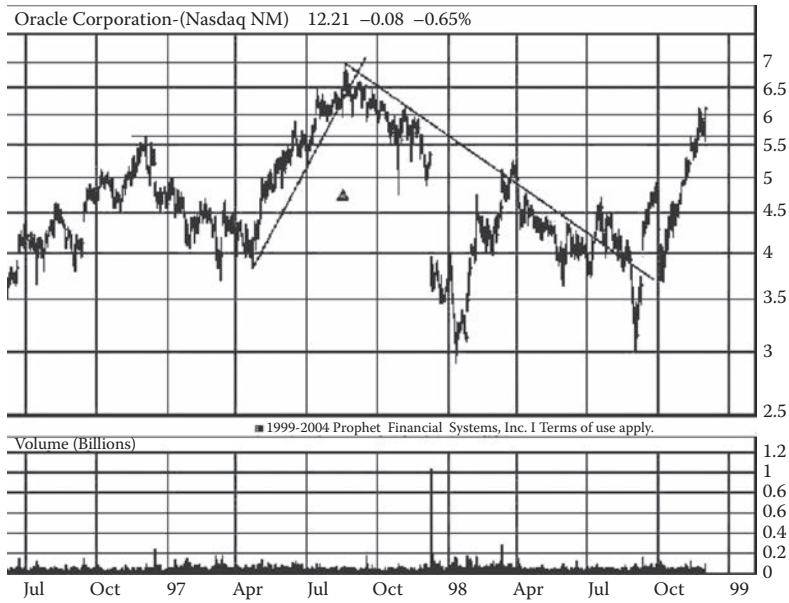


Figure 37.40 Oracle Corporation. Lest one think the air pocket gap does not still exist, here is an example from the turn of the century (third millennium). These gaps, caused by disappointing earnings, were so prevalent at the end of the century at the top of that Bull Market that one could short vulnerable stocks before earnings reports with little upside risk and often collect nice scalps like this one.

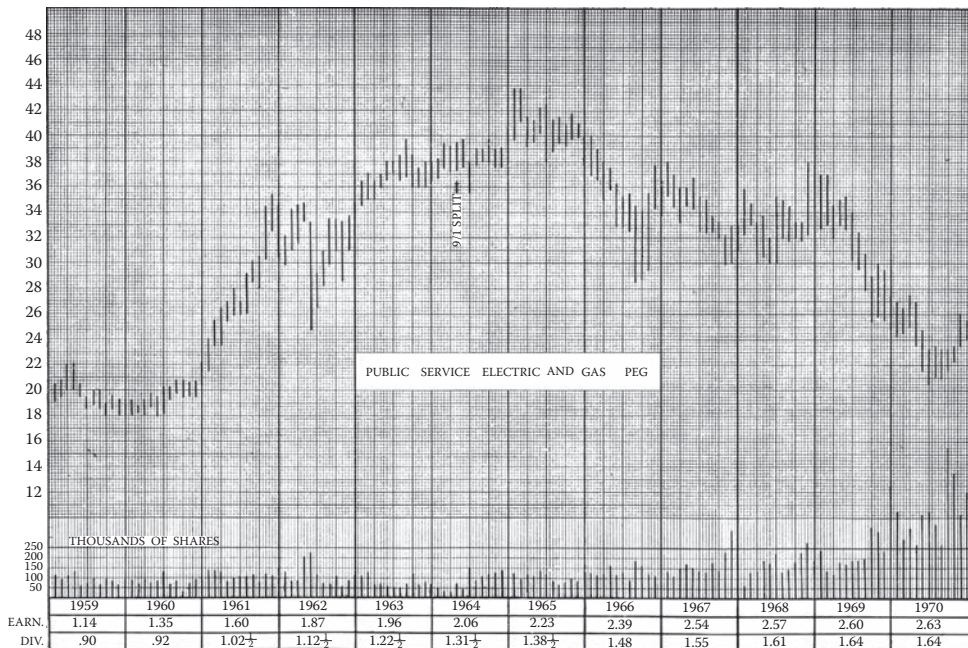


Figure 37.41 A typical electric and gas utility stock. There are a great many stocks in this group, serving various municipalities or regions. They tend to show similar market behavior because they are basically similar in nature.

There is a relation between the earnings of a company and the dividends paid, and the market price of the shares. Neither earnings nor dividends alone, however, are sufficient to constitute a complete determination of “value” because there are many other factors that can affect the “value” considered from different angles, such as dependability of earnings, future prospects, taxability, research and development investment by the company, and so forth.

The electric and gas companies, enjoying a regulated monopoly position in most communities, have a sure and steady income. They are also in a definite “growth” situation because of the constantly increasing demands for power by users. Most utilities will show a record and pattern of trading over a period of years very similar to that of “PEG.” You will notice reported earnings have been larger each year from 1959 through 1970. Also, the dividend rate has been increased each year except in 1970, when it was unchanged from the year before. Anyone basing his estimate of “value” on a simple index such as “price–earnings ratio” would conclude the stock was 2 1/2 times as good a buy in 1970 as it had been in early 1965.

Obviously, there is more to it; the big funds and other large holders of stock are not giving up “bargains” of that sort lightly and for no reason. The depressed chart is undoubtedly reflecting the whole thorny outlook facing the utility industry, including costly new facilities, anti-pollution devices, and other problems including deregulation.

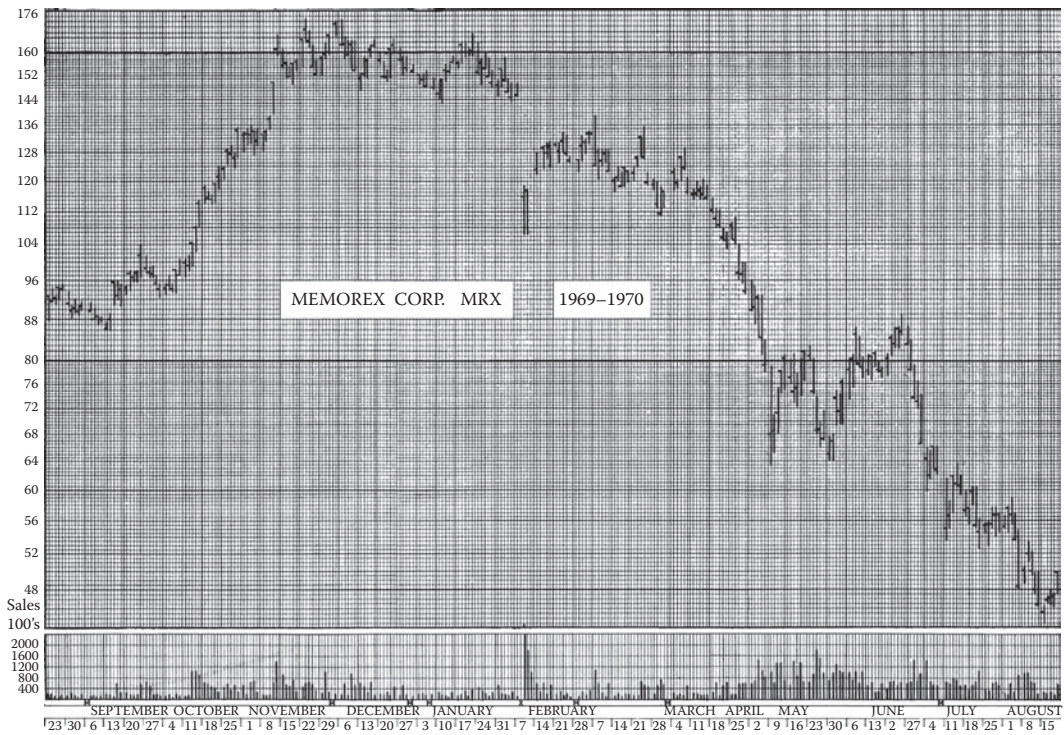


Figure 37.42 Although 1969 was Bearish for most stocks, “MRX” was enjoying the final fling of a dramatic four-year advance. Notice the Island-like Top in November, December, and January, and the low volume all through this period. The Breakaway Gap in early February speaks for itself. See also [Figure 37.39](#).

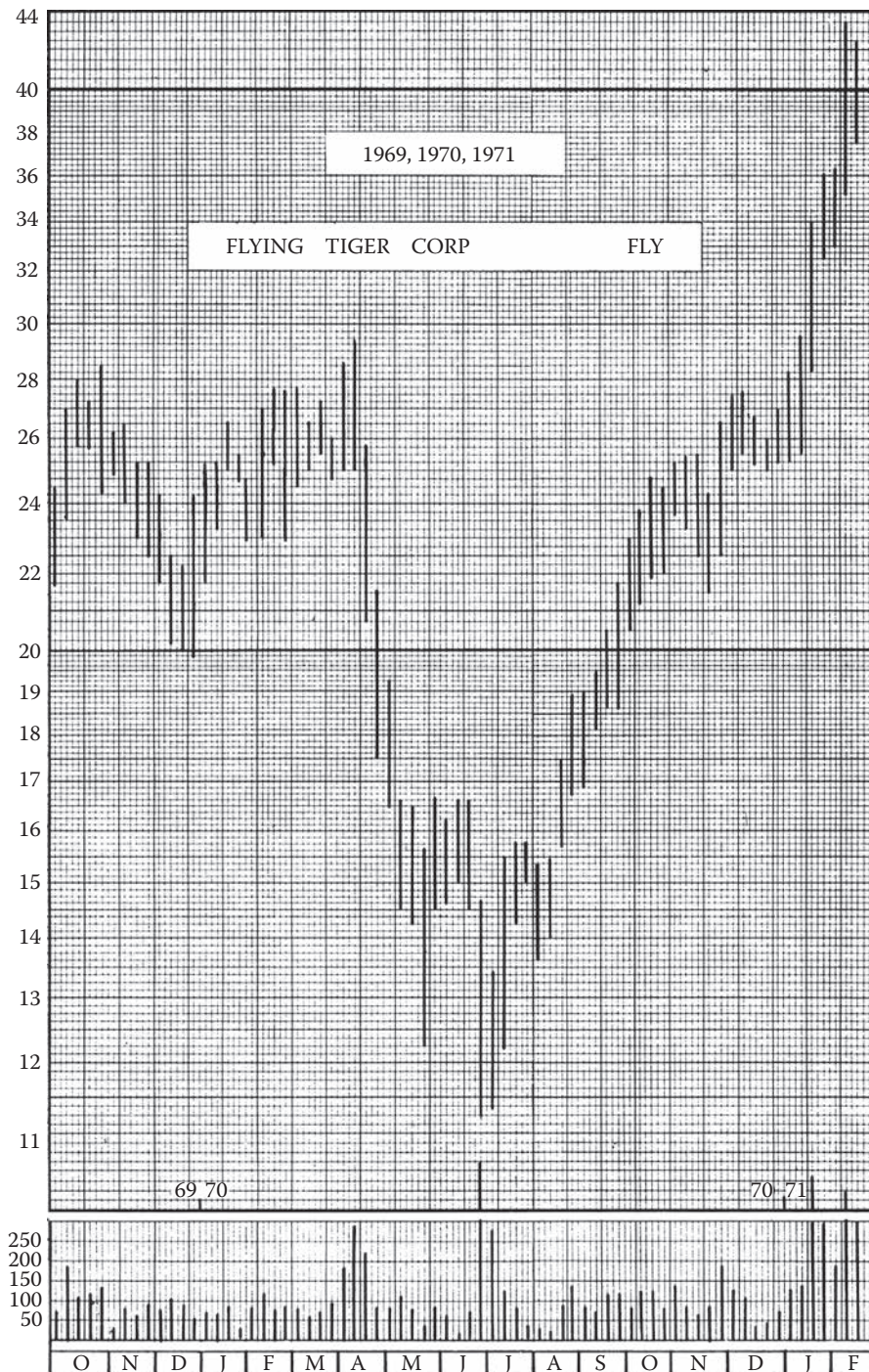


Figure 37.43 From a 1967 high of $48 \frac{1}{2}$, "FLY" started a downtrend that lasted two years and took the stock down to $11 \frac{1}{4}$; but during the spring and summer of 1970, the stock found bottom, made a Head-and-Shoulders Reversal, and took off in a skyrocket move that, by February 1971, had recovered nearly all of the two-year drop.

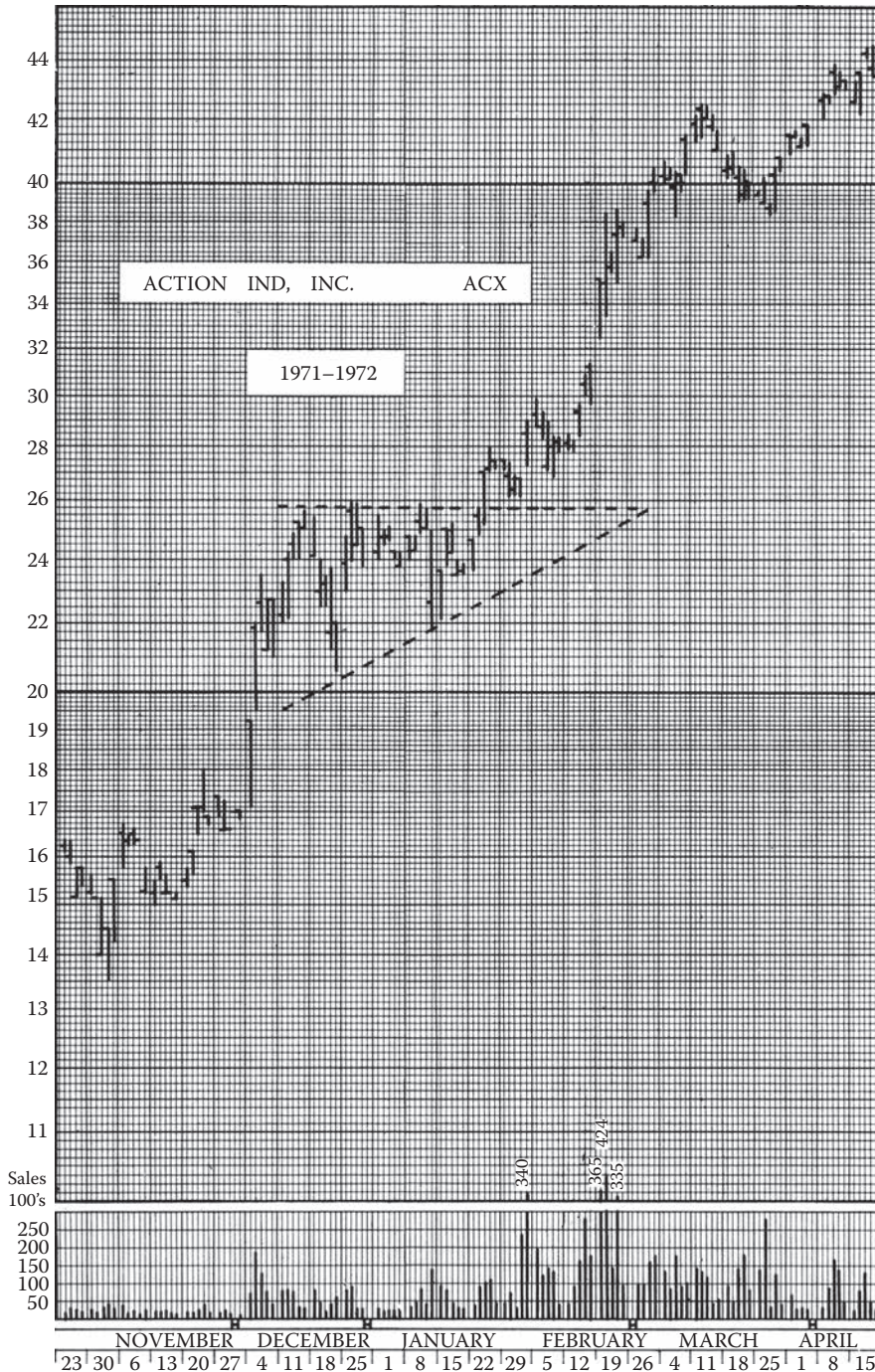


Figure 37.44 Here is a familiar pattern you have seen many times before in the pages of this book or in your own charts—a large Ascending Triangle in the daily chart of Action Industries, formed in December of 1971 and January of 1972. Notice the typical breakout and reaction moves and the continued uptrend into April of 1972.

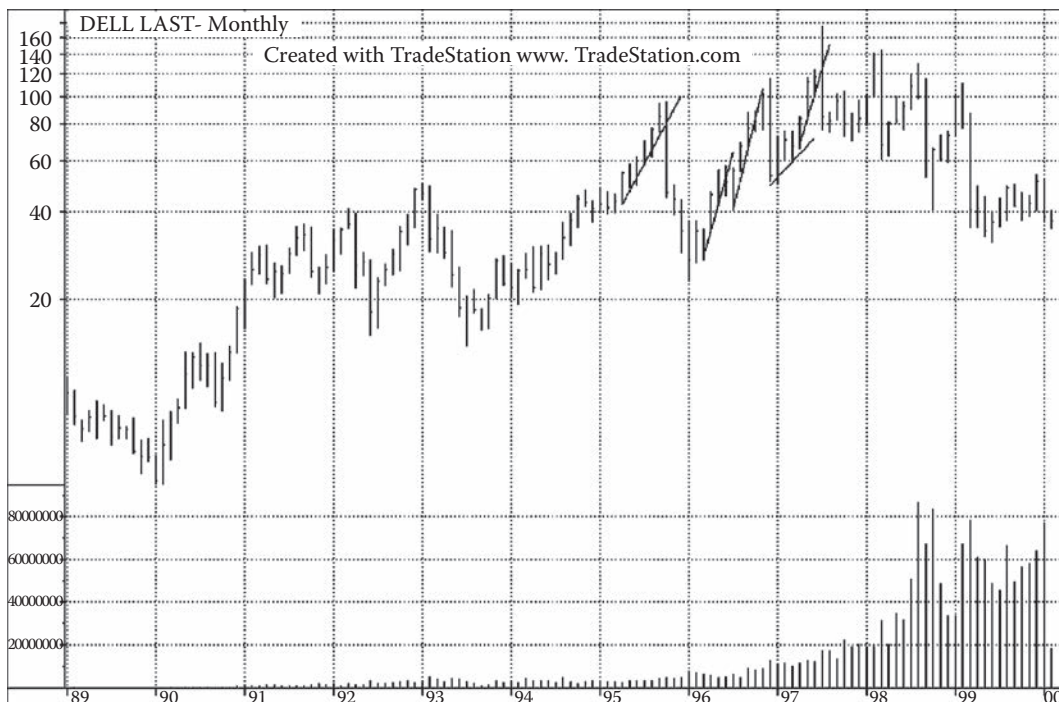


Figure 37.45 Two things are remarkable here: (1) the amazing story of a business emerging from a college dorm room—a computer business, of course—and (2) the regular occurrence of air pockets, which will be seen better on the next chart. Not a stock for those who dislike carnival rides and surprises. One should fit his portfolio to his digestion. Dell broke its long-term trendline, which the reader may easily draw here with a ruler, and after setting a bull trap, went to 20, displaying several major warning downside gaps (see next chart). The out-of-proportion volume at the chart end is a forewarning.

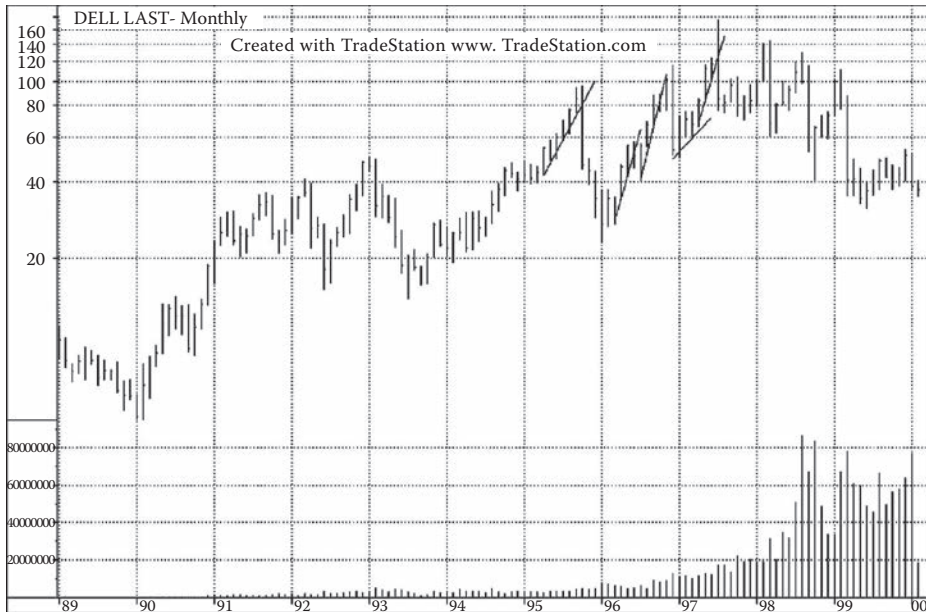


Figure 37.46 DELL. The breakaway or air pocket gap continues to astound, so frequently choosing to occur at horizontal lines. An exceptionally alert trader might have avoided the air pocket, observing the broken trendlines. The average technician would have got out and shorted the breakaway gap. Seen one tulip, seen them all.

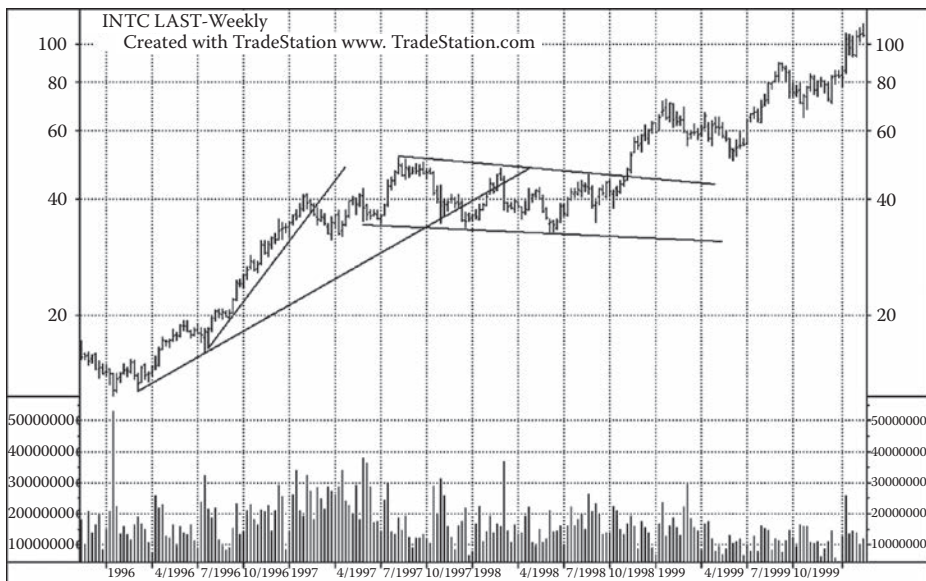


Figure 37.47 The benefits of the “Wintel” partnership are reflected in Intel’s chart. The trader might have been in and out of Intel several times based on tightening trendlines, whereas the long-term investor would have patiently waited out the—call it a “rectangular wedge”—that never was violated on the downside. The steeper the trendline the more likely—even the more certainly—it will be broken.

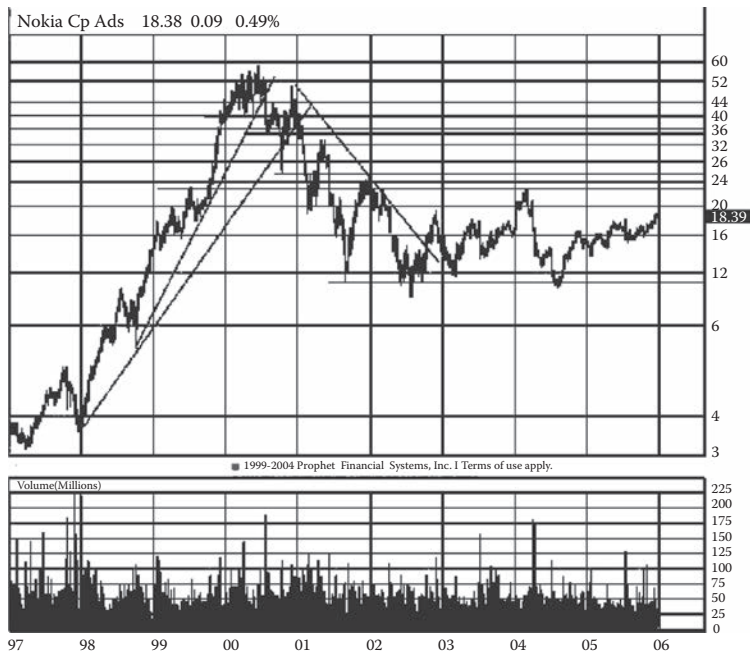


Figure 37.48 NOKIA (NOK). Not enough is made of the marking of zones of Support and Resistance (highs and lows) with horizontal trendlines. These benchmarks help the technician to mark the running of the tide, just like Dow's stakes on the beach. Notice how the high of 1999 influences the high of 2004. The breaking of horizontal lines here after the breaking of the steepest trendline once again tells the tale for the technician.



Figure 37.49 AMD. Reflecting the vagaries of the semiconductor business, including the felicity (or infelicity) of being a competitor of Intel, AMD shows trading opportunities both up and down. Here the intermediate-term trader would respond to the vigorous breaking of short-term downtrend lines to get long.

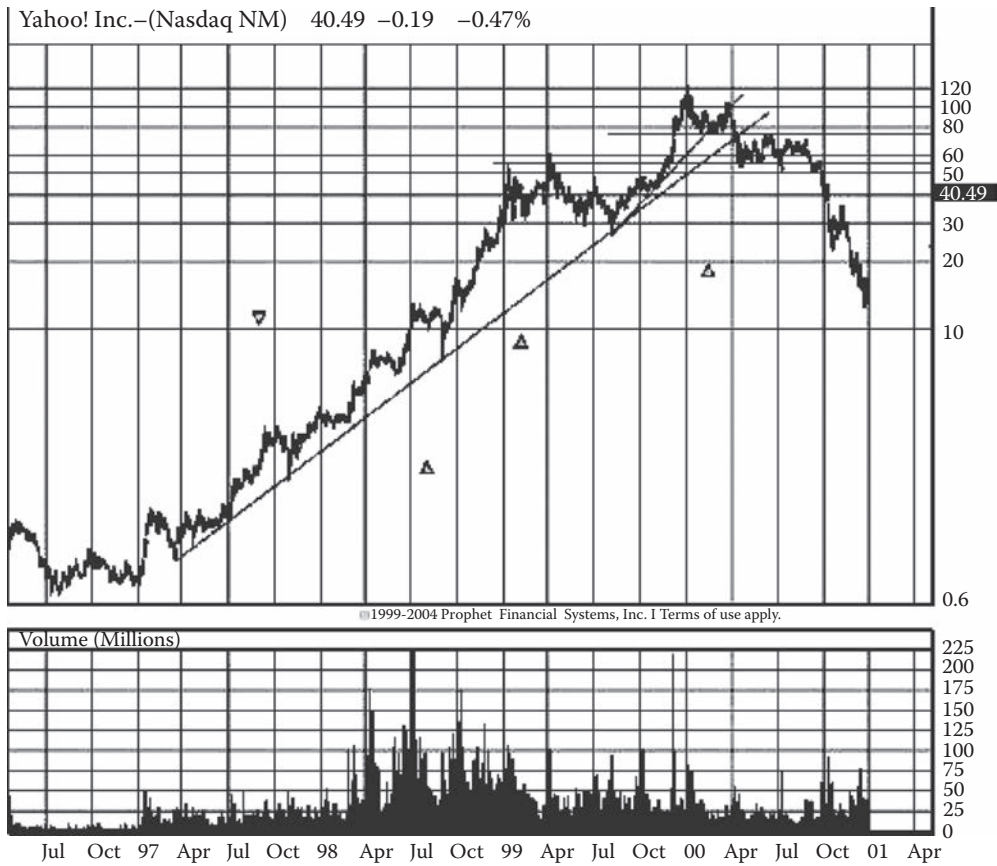


Figure 37.50 Yahoo! (YHOO). A superb trendline that should have kept the technician long until April of 2000—and then got him out, especially when combined with the top horizontal trendline. The extravagant volume at the very top is the exclamation point on the warning.



Figure 37.51 Any resemblance between this chart and Amazon (see [Figure 23.13](#)) is not strictly coincidental. Readers will remember Magee's principle that birds of a feather flock together. Internet goony birds certainly do—or did. Yahoo! looks in this guise somewhat stronger than Amazon, but then selling books and mortar is a harder row to hoe than selling electronic images (best business in the world). Again, such an attractive fundamental story. Gooks (or geeks) on skates helping revolutionize the wild frontier—we love these stories, but not enough to stop drawing lines on the chart and selling them when they violate our lines. Even love must obey the rule of the ruler.

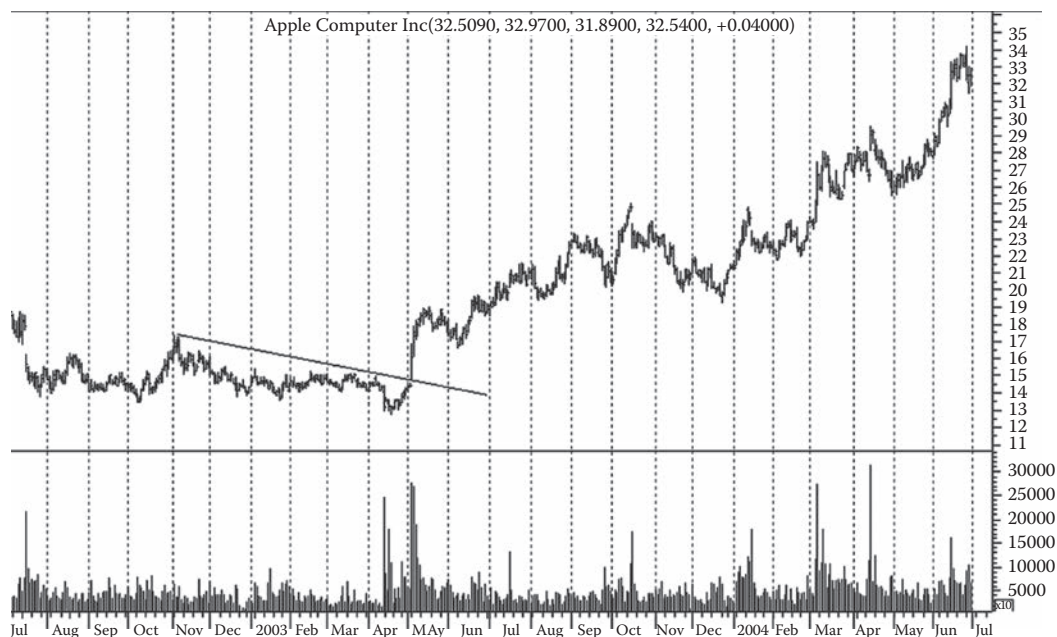


Figure 37.53 The file of press clippings predicting the death of Apple weighs as much as the daily output of the Augean Stables, and it is worth as much. One wonders why the press likes to beat on Apple so, especially when the wizard was up to his never-ending tricks; the wizard (Steve Jobs) had millions of fanatics ready to support his next trick. Although the Beatles are mad at Jobs and Apple, Apple is now a music company as well as a computer company. The smooth-as-silicon lubricant iPod made music to investor's ears and Apple took off on another run. The start of the latest trick is pictured here. The volume in April is the wake-up call. Of course, what is that volume? A shakeout. The breakout across the Descending Triangle line after the false signal (Remember? Those false signals are often followed by valid signals), the volume, and the surging run days—all good grist for the analyst's mill. Furthermore, the surge across the downtrend line on big volume should be recognized as an important technical pattern regardless of what proceeds it.



Figure 37.54 \$NDX, THE NASDAQ 100. Following the Basing Points Procedure in [Chapter 28](#), an almost completely objective procedure may be devised for the very long-term investor to replace or augment Dow Theory. In this chart, the Basing Points Procedure is applied to weekly bars. Thus, instead of three days away, we look for three bars away. The result is a trade that lasts around 10 years! The method gets long in 1991 at the arrow, holds the trade until about 2001, and reverses. Observes the bottom of 2002 and reverses again and is long into the Bull Markets of 2006. Arrows show the signals; numbers mark the Basing Points, and Stops, which would be about 5% under the Basing Points, are not illustrated.

chapter thirty-eight

Balanced and diversified

The average investor wants a clear-cut, simple, easy answer to his question, “What do you think of the market?” To him, it must be at all times either a Bull Market or a Bear Market. If, in answer to his insistent demand, you reply with the question, “What particular stocks are you interested in?” he will avoid that issue and say, “Oh, I mean in *general*.” (For illustrations in this chapter see [Diagrams 38.1](#) and [38.2](#).)

If you will examine the pages of any magazine or newspaper carrying a great deal of financial advertising, you will find many advisers and advisory services make a great point of giving unhedged opinions as to the future course of the market, and these opinions are most frequently couched in terms of what the market as a whole is going to do.

Now, there is just enough truth in the common belief that they all move together to make this an exceedingly dangerous assumption. It is true, for example, we can set up *definitions* of what we feel constitutes a Bull Market or a Bear Market, such as the Dow Theory, and if a given set of conditions meets the rules we have laid down (i.e., our definitions), then we can say accurately, “according to my premises this is now a Bull Market” (or a Bear Market, as the case may be). It is also true that over the years, if we had treated the Dow Industrial Average (DIA) *as if* it were a stock and had theoretically bought it and sold it according to classic Dow Theory, we would have done very well. (EN: As is vividly illustrated in [Chapter 4](#), where buying and selling by the Theory netted one \$795,592.01 as opposed to \$55,411.83 [as of December 29, 201]) through buying and holding. Of course, now it is the same as a stock [ETF], DIA.)

It is also true in the great inflationary and deflationary movements, which reflect the changes in the relative values of dollars to equities, there is a tendency for the majority of stocks to move with the tide. Furthermore, it is true in the day-to-day movement of stock prices that most stocks move up or move down together.

We should never lose sight of the fact the Averages themselves are abstractions, not railroads, manufacturing companies, airlines, and so on. If the Averages move, it is because the individual stocks making up the Averages have moved; although, it is true during a time when the Averages are advancing, a majority of stocks are also advancing, it is not quite possible to reverse this and make it absolute by saying *because* the Averages are advancing, therefore, *all* stocks *must* advance. If we carried this to its logical conclusion, we would arrive at the point (that some have arrived at) at which the fact that a stock has not advanced, but rather has declined in a Bull Market, is considered sufficient reason to make the stock attractive for purchase on the basis it must catch up with the others.

If we examine the facts, namely, the long-term records of what stocks have actually done, we find there are periods when most stocks go up in value and other times when most of them go down. We find, sometimes, laggard stocks eventually will join the procession in an upward trend.

However, this does not always happen and it can be extremely uncomfortable to have bought stocks in a presumably Bullish Market because they are behind the market or they are all going to go up, and then wait for months as we watch other stocks climbing to new highs, whereas our own securities continue to languish or decline further.

From what you already know of the market, you will surely agree it is not a wise policy to put all your capital into buying stocks in what is clearly a Bear Market in the Averages and in most stocks. You will agree, too, it is not a safe thing to sell stocks short to the limit of your resources in a skyrocketing Bull Market.

If you have to be 100% on one side or the other, it is much better to go with the trend. In that way, you will be in line with the probabilities as shown by a majority of stocks and by the Averages.

Nevertheless, you should realize going with the trend is not always as easy as it sounds. We can set up definitions, as we have, of what constitutes the Major Trend. Then the question is whether you have the patience and the courage to maintain a position in line with these definitions through months of uncertainty and possible adverse moves. During turning periods, it is often hard to make the decision whether to buy or sell.

Most especially, there is the difficulty of knowing what to buy or what to sell and when. The simple patterns and signals of the Averages do not tell the whole story. There is a certain usefulness in regarding the market as a whole in studying Dow Theory, just so long as we keep in mind the Averages we are studying are generalities (high-order abstractions) and the rules for determining their trend apply to these generalities and not necessarily to each and every stock listed on the Stock Exchange.

In many cases, for example, a group of stocks will top out and start an important Bearish Trend, whereas other groups of stocks are continuing to make new highs. This occurred in 1946, when we saw a large number of stocks topping out in January and February, and others continuing strong until the end of May.

We think of 1929 as the year the market made its great peak and crashed in October to start the series of breaks that continued into 1932. There is some truth in this, but it is not the whole truth. There were some important stocks that made their highs long before the 1929 Top. Chrysler, for example, made its high in October 1928, and had dropped from 140 to 60 *before* the Panic of 1929. There were stocks that never enjoyed a Bull Market at all in the whole period from 1924 to 1929. By actual count of nearly 700 listed stocks, 262 issues made their Bull Market highs before 1929, and 181 topped in 1929, but before August of that year. There were several stocks that did not have their first downside break until after 1929. Forty-four stocks went into new Bull Market high ground after 1929 and before mid-1932. Only 184 of the 676 stocks studied made their Bull Market highs in August, September, or October of 1929 and crashed in October and November.

In other words, only 27% of the stocks acted the way everybody knows *all* stocks acted. (EN: *As the Dow and S&P 500 made all-time highs in 1999 and were near those highs in 2000, the same condition held true again. Many stocks had topped and were in long downtrends. EN9: And as stocks crashed after the top of March 2000, Dow stocks held up well compared with NASDAQ stocks and Standard & Poor's (S&P) 500, which saw declines of around 50% [see Figure 20.3].*)

It is all right to accept the general trend as a useful device, as long as we know it is a device only, and not a picture of the detailed reality. We have to face the problem that continually confronts every student of the market: how to protect ourselves from uncertainties in interpretation of the Averages, and how to protect ourselves against stocks that are not moving with the majority. The problem can be met, first of all, by not taking an unreasonable amount of risk at any time (see [Chapter 41](#)).

It can also be met by using an Evaluative Index instead of switching from all-out Bullish to all-out Bearish. By this we mean using an indicator that will show not merely whether it is a Bull Market or a Bear Market, but how Bullish or how Bearish it seems to be at a given time.

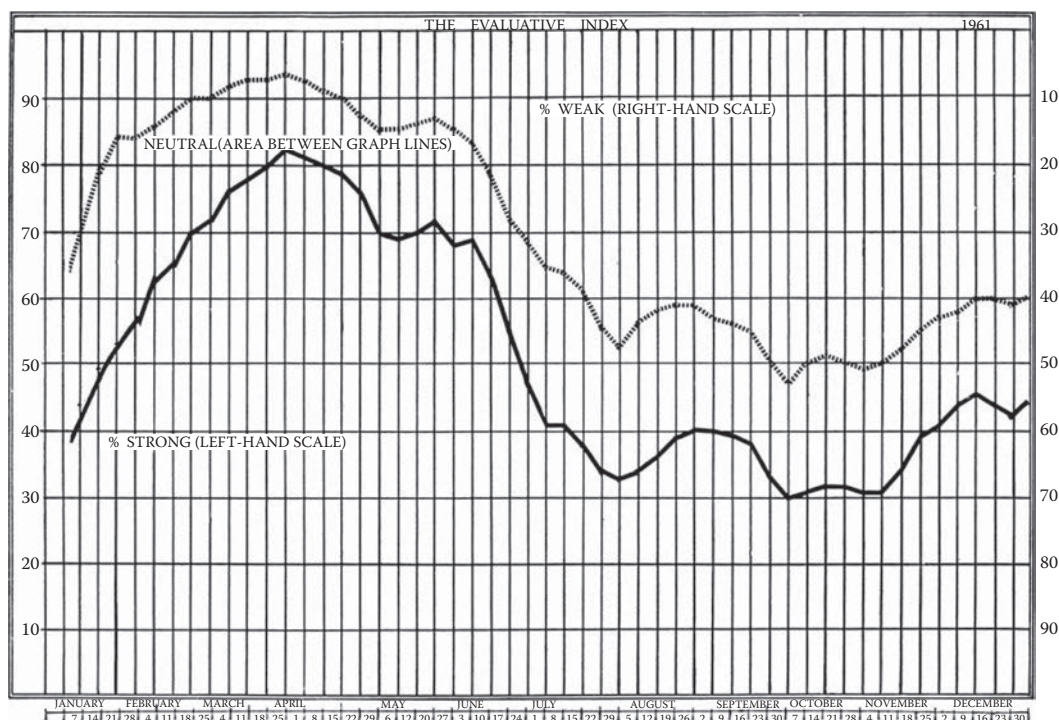


Diagram 38.1 The Evaluative Index shows the percentage of stocks that appear in Bullish or Bearish Major Trends. In 1961, this Index conflicted with “stock Averages,” suggesting a possible Major Turn.

At first glance, this may seem not too different a conception from that of the classic Dow Theory; the same technical methods apply. Also, during a strongly Bullish Market, an Evaluative Index will also indicate approximately the *degree* of strength. As the market begins to develop weak spots, as did the market in 1928 and 1929, the *degree of Bullishness* will gradually decline.

Before considering the use of this Index, let us outline what it is and how it may be constructed. You will understand it is not a precise tool; it gives only an approximate picture of the state of the market; it gives no positive signals; and, in the final analysis, it is a reflection of the judgment and opinion of the person who is maintaining it.

Suppose you are keeping daily charts of 100 stocks; at the end of each week, you can mark these along the bottom of the chart with a small plus or minus, indicating your opinion as to whether each particular stock is moving in a Bullish Major Trend or is Bearish. In some cases, you will find it hard to make a decision. This is not too important, however, because these cases will not be numerous, and in the majority of stocks, you normally will be able to mark them plus or minus on the basis of their obvious action. If you now total the plus stocks and also the minus stocks, including those in which you have had to make a tentative decision, you will have two figures totaling the number of your charts. If 75 of these are plus, you can say the market looks 75% Bullish to you. If next week the percentage is higher, say 80%, it indicates a stronger or more Bullish condition. If it is lower, say 70%, it shows that, on balance, fewer of your stocks look strong; hence, the market is presumably weaker.

(EN10: *A quick way to construct an Index of this sort is to run Moving Average studies on the market, examining how many stocks are above their 50-day Moving Average, how many above and below their 200-day Moving Average, and so on. Obviously, you can also do it as Magee did, by examining each chart of the Dow to see whether it looks strong or not.*)

As we have said before, if the Averages are making new highs, you will expect (and find) the Evaluative Index will range well above 50%. In an obvious Bear Market, the Index will stand considerably lower than 50%.

However, notice we do not speak, here, of signals. There is no point at which we need to say, "Sell everything." Neither is there a point at which we can say, "Buy now," in an all-out sense. The Index will float and adjust itself continually to the shifting conditions.

It must be clear that a market in which only 53% of a large group of representative stocks are moving Bullishly is not as strong as one in which 80% of these stocks are acting Bullish.

Therefore, you would be justified in making larger commitments on the long side in this second case.

You would still have the problem of *selection* of the individual stocks to buy, but you would be justified in making larger total commitments or in assuming total greater risk (see again [Chapter 41](#)), than in a market that was barely qualifying as a Bull Market.

By bringing the total of one's investment program in line with this Index, it is possible to roll with the punches, and one would almost automatically be withdrawn from a deteriorating market before things became too dangerous. Furthermore, this would be accomplished without the need for torturing decisions as to whether to sell now or wait a while.

There is a further extension of this method. If an investor were to follow the Evaluative Index only by increasing or decreasing his long commitments with the rise and fall of the Index, he might be better off than if he had only the two alternatives of complete optimism or complete pessimism. In this case, he would still be pointed always in one direction and would stand to lose to some degree on his long commitments if the market did eventually reverse and go into a Panic Move.

The extension of the method is to proportion capital, or a certain portion of capital, between the long side and the short side of the market. Assuming your interpretation of your own charts is reasonably correct in a majority of cases, you can, at any particular time, select several stronger-than-average stocks, and similarly, several weaker-than-average issues.

With the Index standing in the vicinity of 50% (as it did for a number of months in mid-1956), you can then select several strong stocks to buy, and several candidates for short sale, making commitments that will approximately balance your total risk. In the case of an upward surge that sweeps all before it, you will accrue losses on the short sales and eventually may have to reverse your classification of them from minus to plus, closing them out for a loss. In such a case, the gains on your good long positions will more than offset the loss, assuming your choices were well made, and the loss realized can be absorbed as insurance, namely, the price you have paid to be in a protected position.

On the other hand, should the market collapse suddenly (as it did, for example, at the time of President Eisenhower's illness in 1955) (EN: *and as it did on rumors of Reagan's incompetence in October 1987, and the Asian Flu of 1998, and so on and so on*), the accrual of loss in the long positions will be offset by accrual of gains in the short positions. If the decline should continue to a point calling for sale of the long stock, the losses here could be considered the price of the insurance protection to the shorts provided by the longs. (EN: *In the tradition of the Texas Hedge, I take a somewhat different view of shorts. Although they*

would be viewed in Pragmatic Portfolio Theory as reducing risk, I like to view shorts as another profit opportunity with the added benefit of reducing total risk. Being short a stock in a confirmed Uptrend is simply feckless, and vice versa.)

It is also quite possible, in a more normal market, for both the long positions and the short positions to show gains. What we are proposing is a systematic and continuous arbitrage or hedge. As the Evaluative Index advances, the proportion of short positions would gradually be reduced, and the long positions increased. As the Index declines, the reverse would happen. (EN9: I have suggested the method outlined here be called a "Natural Hedge," and the implementation of the hedge be called "Rhythmic Trading." A Natural Hedge of the Dow would consist of a long commitment to, for example, the DIA in a Bull Market and short positions in Bear stocks within the Dow. Or, even better, short positions in stocks positively correlated to the weak Dow stocks. This last because even weak members of the Dow will tend to be cushioned by the large holdings of passive indexers.)

This method is essentially conservative. Those who have always feared the short sale as a purely speculative gamble might well reexamine short selling from the standpoint of using the short sale as a regular part of their investment program as counterbalance to the long holdings.

The result to be looked for in this conservative balanced and diversified program is primarily protection of capital. By its very nature, it eliminates the possibility of plunging for spectacular profits, but it also provides the mechanism by which the technical method can stand on its merits, largely independent of the changes and chances of the market. It makes it possible to eliminate a large part of the anxiety and uncertainty so many traders and investors carry every day and often late into the night.

(EN: Many modern readers are probably unaware that John Magee wrote a weekly advisory letter for four decades. These wise and practical letters comprise the John Magee Market Letter

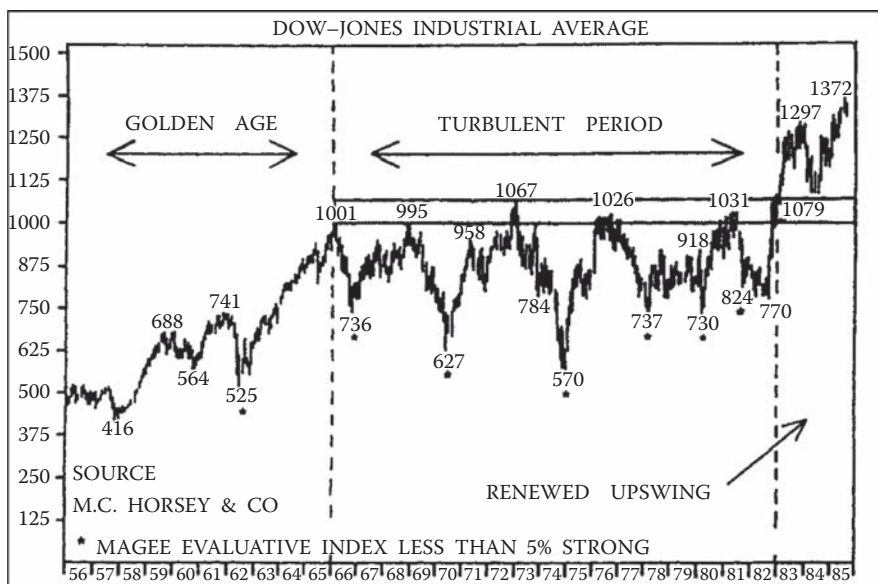


Diagram 38.2 From Collected Market Letters, September 28, 1985. Magee Evaluative Index computed on the Dow-Jones Industrials illustrating the use of the Index to identify Tops and Bottoms in the market. A sort of "oversold-overbought" indicator.

Archive. From this Archive, I append here the letter of September 28, 1985, relative to the Magee Evaluative Index (MEI). It speaks very strongly for itself.)

September 28, 1985: an oversold market

This week, the MEI fell to 9% Strong, its deepest penetration into the oversold quadrant this year. Not since June of 1984 has this index been lower (see Diagram 38.1). Shortly after its June low of 8% Strong, the MEI headed steadily higher, giving an Aggressive Buy signal throughout late June and July.

The June 1984 MEI low of 8% Strong, together with the 8% level reached on February 25, 1984, constituted a Double Bottom oversold reading for this index. It corresponded to the 1,079 Bottom recorded by the Dow-Jones Industrial Average (DJIA) on June 18, 1984, after which that Index advanced steadily to its recent July peak of 1,372.

For more than 20 years, all major stock market Bottoms have corresponded with extremely low MEI readings. During the "turbulent period" when the stock market oscillated violently but showed no gain at all, MEI readings of 5% Strong or less corresponded with all Major DJIA Bottoms until the June 1982 low of 9% Strong, which immediately preceded the stock market's upward explosion.

That slightly higher than "5% Strong or less" Bottom was an important clue that a reinvigorated stock market was at hand; the straight-line DJIA advance from 770 to nearly 1,300 ended a 17-year "do-nothing" period for stock prices and ushered in the "renewed upswing" period shown on the chart.

In this context, the "8% Strong Bottom" of June 1984, and the current MEI reading of 9% Strong, take on added meaning. If, in fact, we are in a period of Renewed (or major secular) Upswing, stock market Bottoms will tend to be less severe and Tops more extremely overbought than would otherwise be the case. Both the June 1982 DJIA low and that of June 1984 fit this model. Because secular stock market waves tend to last for many years, even decades, the likelihood is that the current MEI reading of 9% Strong will also define a Major DJIA low.

chapter thirty-nine

Trial and error

You will not expect to turn in a perfect record from the start. You may indeed do poorly, which is one of the reasons we have suggested using only a safe amount of your capital, allowing enough leeway so if you should misread and misdirect your campaigns, or if you should encounter an Intermediate Setback in the trend of a Major Turn, you will be able to get back on course, undismayed, and richer in experience.

Your records of actual transactions (and notes on theoretical transactions) will help you. As time goes on, you will discover new trading refinements. Try these methods against your previous chart records. See whether your improvements work out consistently to your advantage. In that way, you can test new details of method without risking actual capital until you have checked the operation thoroughly.

In one actual case, a trader who had shown a rather poor record of performance through a fast-moving Bear Phase of the market, rechecked 30 of his actual trades made during that period in light of new methods he had subsequently developed. Where the original record showed a loss at the rate of about 40% per year on the capital for the time it was tied up, the changes he introduced, applied to the same situations, would have resulted in a profit at the annual rate of 156%. Such a result, although not conclusive, would strongly suggest trying out the new method in all similar situations in the future, and if the performance continued to show this advantage, to adopt it as a permanent policy. It is only by continual checking and testing that you can learn to pick up more of the profitable opportunities and protect yourself better against the unexpected Reversals.

If you follow the suggestions of this book, those already given, and those in the following chapters, you will proceed slowly and cautiously, not risking all your capital on a single move in a single stock; subsequently, errors and plain bad luck, when they hurt you, will not hurt you too seriously. You will be prepared for false moves, wrong interpretations, and complete Reversals of expected developments.

If you have worked thoughtfully and serenely, without permitting your emotions to rule your judgment, the law of averages will bring you continually greater success. You are not gambling blindly in this work; you are intelligently using past experience as a guide—and it is a dependable guide. Your operations are part of the competitive workings of a free market; your purchases and sales are part of the process of interpreting the trend, checking runaway inflation and crashes, and determining the value of the American industrial plant.

The market will continue to go up and down in the future as it has in the past. Your technical knowledge will save you from “buying at the Top” in the final Climactic Blow-off, and it will save you from selling everything in a fit of depression and disgust when the Bottom is being established. In your studies of past market action, you have a strong shield against the sudden thrusts that surprise and often defeat the novice trader.

(EN9: I have often told my students if their knowledge of this material does nothing more than keep them from making stupid mistakes like buying a Top or buying a downtrend or buying before a Bottom has completed forming, then their time will have been well spent. The elimination of amateur blunders such as these can immeasurably improve investment performance.)



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chapter forty

How much capital to use in trading

Up to this point, we have been talking mostly in terms of points and percentages. Little has been said about dollars. From here on we are going to turn the spotlight on the questions revolving around money, capital, and the dollars you will actually be using in your operations; just as an understanding of the technical signals and patterns alone will not guarantee your profits without a tactical method of applications, so too your tactics alone will not ensure you profits until you have tailored your method to fit your pocketbook, and until you have a systematic control of your trading in terms of dollars and cents.

At the start of your charting operations, you will be using no capital. You will be making no trades either actual or theoretical. Any commitment you might make during the first four or five weeks on a new chart would be no more than gambling on a hunch. It will take about two months of thankless charting before you have any clear picture of how any of your stocks are acting technically. From then on, your chart history will become more valuable each week. Your first trades probably will be theoretical ones. You will want to get the feel of the charts and learn to apply the methods you have studied. Eventually, you will want to make an actual transaction.

(EN: The prudence of this approach can hardly be disputed. Just as markets have changed, stock market mentality and awareness have changed. The mere existence of this book and of the general atmosphere enable the modern investor to progress more rapidly than the old pencil-and-paper and slide-rule chap. The availability of computers and databases and tutorial tools, not to mention online and offline courses in the subject, are unparalleled resources.)

Then the question will come up, "How much of my capital shall I use for trading purposes?" *(EN: In a certain sense, this question begs the question. It presupposes the reader has capital. If the reader does not have capital but is gambling with the milk money or the mortgage payment, his failure is virtually assured. Do not speculate with money whose loss will occasion you more than passing discomfort.)*

The amount will depend on your circumstances and how much of your time and effort you plan to put into stock trading, as well as your experience in the market. If you have been buying and selling stocks for a number of years, you will naturally continue along the same lines, simply applying the new techniques to your operations.

On the other hand, if stock trading is entirely a new field for you, or if it is only a minor hobby or sideline, it would pay to make haste slowly. Some writers have pointed out it usually takes about two years to gain enough practical experience to operate safely in the market; during the two-year apprenticeship period, many traders come in, gradually lose their capital, and retire permanently from the field, leaving their money behind them. Therefore, no matter how confident you may be or how anxious to get in and start pitching, it would be safest to do most of your experimenting on the theoretical basis and to use only a small amount of your actual capital, so that after, say, two years, if you have shown some actual profits, consistently and regularly, even though small, you will be much better prepared to use more of your capital wisely and safely. Conversely, if during that time you have made repeated mistakes and have registered many unnecessary losses, you will be

able to correct your methods and continue on a sounder basis, without having lost your main capital reserve.

In no case do you want to risk everything you can scrape together on the theory that here is the quick way to make easy money. That simply is not true and the chances are overwhelmingly against you if you go ahead under any such plan.

It is better to figure out how much you can spare, how much you could afford to spend for experience, considering the amount you start with is in the same category as money you might use for taking a special course of instruction, or for improving property you hope to sell. Or, to take another example, it would be similar to the salary you might lose in accepting a lower paid position in a new kind of work that eventually should be worth more than your present job.

In other words, you will not depend, from the start, on any returns from the capital you use in trading. You will plan your own budget outside of these funds, even if that calls for trimming your budget to make that possible. Then you can go ahead and follow your trading method free from any pressure to take unnecessary risks, free from the need to sell stock prematurely to meet obligations, and free from heckling fears and worries.

You can start operations with as little as \$500. *(EN: This is especially true in the Internet age. Free commissions in many sites and the availability of low-cost diversified trading instruments like index ETFs [(the SPY (S&P 500), DIA (Dow Jones Industrials), and QQQ (NASDAQ 100)] offer the small investor more opportunity than ever before in financial market history.)* Better to have \$1,000 or several thousand, but it makes little difference, so long as you have worked out what *you can afford to use* during the apprenticeship period, and as long as you are sure you will have capital to continue your operation as you develop ability. The important thing at the start is not how many dollars you can make, but what percentage of increase per year you can average with the capital you are using.

If you approach the serious business of trading in this frame of mind, you will not be afraid to take losses when it is necessary (and there are times when that is the only wise course to adopt). You will not be straining to make an unreasonable or impossible profit (with the usual disastrous results). Additionally, you will be able calmly to build your trading policy in the sure conviction the market will still be there next year, that opportunities will still be waiting for you, and that the basic procedures you are developing are more valuable than any "lucky break" you might pull out of thin air or a boardroom rumor.

chapter forty-one

Application of capital in practice

(EN: Today we would refer to this as “asset allocation,” about which many learned books and articles have been written (see Appendix B, Resources). The modest suggestions in this chapter are, like Magee, very pragmatic and simple—and quite possibly more effective for the general investor than those complicated procedures spun out by supercomputers for complicated Street portfolios.)

Let us now restate a number of ideas we have already investigated and on which (let’s hope) we are thoroughly agreed.

1. Major Trends ordinarily run for long periods of time, covering a tremendous number of points in total advance or decline—15733.05, 2009 to 2017.
2. Almost unbelievable profits could be made by one who could buy stocks at the extreme Bottom of a Bear Market and sell at the extreme Top of the following Bull Market; or sell short at the extreme peak of a Bull Market and cover at the extreme Bottom of the following Bear Market.
3. It is not possible to accomplish either of these desirable results.
4. It is possible to avoid becoming trapped in purchases made at or near the extreme Bull Market Top so that losses become dangerous or ruinous in a Major Reversal. It is also possible, of course, to avoid such losses through ill-advised short sales near the extreme Bottom of a Bear Market.
5. It is possible to make profits by trading in line with the Major Trend, and in some cases, by trading on the Intermediate Corrections to the Major Trend, or, occasionally, on the individual behavior of a stock moving contrary to the Major Trend.
6. The greatest and most dependable profits may be made along the Major Trend during the principal period of advance (or decline, in the case of short sales), but not during the earliest phases when the movement first gets under way or during the rounding off or Reversal phenomena near the end of the movement.

Therefore, to get the greatest benefits from following the Major Trends, one would want to have a relatively small equity in the market at the very start of the move and very little at or near the termination of the move, but a very substantial interest during the mid-portion when the advance or decline was making the greatest headway.

The writers have felt it should be possible to express this relation between the amount of capital tied up and the state of the Major Trend in a neat and definite equation. Yet, inasmuch as the idea of a Major Trend is, itself, a matter of definition, and because the trend is an abstraction from the individual movements of many stocks, it does not seem possible to arrive at any such easy solution to the problem of how much capital to use at a given time.

Nor is it necessary to have a definite and exact answer. As we have already stated, it is possible to set up an Evaluative Index that will give an approximate answer good enough for all practical purposes so far as weighing the “strength” of the trend at a particular time. *(EN: To clarify and make more explicit the concept here, I would point out the Asset Allocation implications of the Magee Evaluative Index. If the analyst’s evaluation of the market indicated 30% of stocks were Bullish, 30% Bearish, and 40% neutral, he might so commit his capital—30% long, 30%*

short, and 40% cash. This would also assume his assessment of risk also indicated the risks of the long and short positions were balanced, or approximately equal since infinite precision is achievable only by the writers of academic treatises working with perfect hindsight.)

There are, however, some other questions. Most important is the question of how much total “risk” you are assuming because some stocks are very conservative and others are very speculative, it is not enough to determine what part of your capital should be applied in a market trend. The proportion of your total capital used is not necessarily the whole measure of your participation. The price level of a stock will affect its habits (low-priced stocks make bigger percentage moves than high-priced stocks). The amount of margin you are using will have an effect on the degree of risk.

There is some substance to this plan (otherwise we would not be taking the time to discuss it here at all), but there is a serious question whether the decision as to the amount of capital to be used at any specified time can ever be reduced to a simple mathematical operation. (EN: *Still true although there are those who attempt it.*)

Let us suppose you are convinced this is a Bull Market, in a phase of such potency that you would be justified in using 80% of your capital. However, you will immediately realize, from what has been said in earlier chapters, if this money is put into a high-priced (EN: *and low-beta*) stock, it will not give you as much likelihood of either profit (if you are right) or loss (if you are wrong), as it would if put into a lower priced (EN: *and high-beta*) stock. In the same way, your money put into a stock having a low Sensitivity Index, that is, a conservative stock like a Utility stock, will not give you as much likelihood for either profit or loss as a stock of a high Sensitivity Index (EN: *volatility*), namely, a speculative stock such as an internet issue. These factors, quite as much as the amount of actual dollars, affect your status, and are factors in answering the question, “Am I out on a limb and, if so, how far out?”

To make this perfectly clear, we could take 80% of our capital, say \$8,000 out of \$10,000, and put this amount into the market by purchasing a conservative preferred stock, outright. A great rise in the general market might bring us an increase in value of a few points, perhaps 4% or 5%. Conversely, a great decline might depress the issue by about the same amount. An example of going to the other extreme might be to purchase \$8,000 worth of options on a low-priced, extremely speculative stock, in which the probable result within 90 days would be either a profit of several hundred percent, or a total loss of \$8,000.

Obviously, we could vary our status during the progress of the market either by increasing or decreasing the amount of the total commitment, or by changing the nature of the account, switching part of the total into more or less speculative stocks, higher or lower priced stocks, and also by varying the amount of margin used.

In Appendix A, ninth edition, and [Chapter 42](#), we will show how the principal factors affecting a given sum of capital used (sensitivity, price, and margin) can be combined into one figure, which we are going to call the Composite Leverage Index. (EN: *Once again, Magee demonstrates a practical vision and intuitive understanding both of the markets and of the basic character of investing far ahead of investment theory and understanding of his time. What we have in this concept is nothing less than the original glimmerings of VAR, or Value at Risk. The concepts and practices of VAR are succinctly summarized in [Chapter 42](#). Composite Leverage is a complex subject and based on manual charting. For that reason, it has been left in the ninth edition, where the truly dedicated scholar may study it at leisure.*)

It is perfectly true you must vary your Composite Leverage (EN: *risk exposure*) to take advantage of the fast-moving central portions of important moves, using a lower Composite Leverage at the beginning of such moves and during the tapering-off or turning periods near the end.

It is one thing to express the Composite Leverage accurately, however, another thing to write a formula for applying specific degrees of leverage at particular times. The method suggested at the very beginning of this chapter has some value but owing to the Secondary Reactions and the difficulty of determining Major Trends in individual stocks, it is not possible to make this into the neat, pat rule we are looking for.

It must be a matter of experience, or intuition based on experience. You will not permit your Composite Leverage factor (i.e., your Portfolio Risk Factor; see [Chapter 42](#), Portfolio Risk Management) to run out to a dangerous point on the limb. Neither will you allow it to become so low during times of good market opportunity that you are not getting full benefits from the move.

We can keep the general shape of a Major Swing in our minds as we consider this. Bull Markets normally rise through a series of irregular advances and declines, starting with a moderate upward trend, and gradually accelerating as the market approaches its ultimate top. Bear Markets are likely to move fastest at the start and to taper off gradually toward the end. Bear Markets are steeper than Bull Markets. These considerations will help us to judge the times when the market will offer the best opportunities, the times when our Composite Leverage should be increased.

There are other factors, even harder to pin down in simple figures. We would, at times, make switches of our holdings for reasons indirectly related to the factors making up the Composite Leverage Index of the stocks. We know, for example, high-grade issues, the active market leaders, and perhaps some stocks of a more conservative nature will tend to start their moves in a Bull Market fairly early and to continue their advance at a fairly steady pace. Eventually, they will reach their tops and make a Reversal Pattern. They will decline from this point, probably at a steeper average angle than the ascent. Low-priced and low-grade issues, on the other hand, tend to be slow in getting started, will remain dormant during the early phases of a Bull Market, and will then suddenly and spectacularly skyrocket in a series of moves that brings them to their ultimate Top. This Top, however, is likely to be reached at a later point (perhaps months later) than the point at which many of the more conservative stocks topped out. The speculative group will then drop very fast and will return to the dead levels of inaction before the conservative group has finished its more leisurely Major Decline.

This means you will do well to concentrate your Bull Market trading in the early stages, in the higher grade stocks, and in the later stages, in the lower grade stocks. In a Bear Market, you would perhaps be able to make short sales unsuccessfully in high-grade stocks even while some of the “cats and dogs” were still completing their final run-up; however, you would be watching for the opportunity to cover those shorts and go short the low-grade stocks as soon as their Reversal was signaled.

Appendix A, ninth edition, will go into the Composite Leverage Index. It should be a useful gauge for you in your market operations, and a protection against overtrading. Except, do not expect to use it mechanically as an index against the market to answer all your questions involving the nature and size of your commitments. For in gauging the condition of the Major Trend at any time, your personal experience and judgment must be the final arbiters.

Put and call options

Options of various sorts have a long history in commercial markets. Nearly 2,000 years ago, the merchants who operated in the Mediterranean region used “to arrive” at agreements that amounted to option contracts, as insurance to reduce the risks of storm and piracy.

Modern commodity futures contracts resemble stock options in their dual nature of serving either as trading media or as insurance devices. Options are also widely used in real estate transactions and in various other applications.

For many years, stock options were traded only on the basis of individual agreement between a buyer or a writer, and an opposite number, directly or through a broker or dealer. The customer and the writer were free to decide what stock (any stock) would be optioned, at what exercise or striking price, for what period of time, and at what premium.

In 1973, a new method of handling option contracts was inaugurated by the Chicago Board Options Exchange and later the American Stock Exchange, and then to other Exchanges across the country in which call options on a selected list of actively traded stocks are offered with standard expiration dates (like commodity contracts) and at definite exercise prices, the premium depending on the bids and offers of buyers and writers. An excellent guide to this rapidly expanding market is *(EN) Options as a Strategic Investment* by Lawrence G. McMillan.

(EN: In the Internet age, options and derivatives markets have attained an astounding economic importance. One amusing way of measuring this importance is by listing some of the great debacles that have occurred to major traders of derivatives. Bank Negara, Malaysia's central bank, lost \$5 billion in 1992–1993 through bad bets on exchange rates. Showa Shell Sekiyu, Japan, lost \$1.58 billion in 1993; Metallgesellschaft, Germany, lost \$1.34 billion in the same period. Barings Bank lost \$1.33 billion on stock index futures. From 1987–1995, known losses like this totaled \$16.7 billion. As Magee would say, etc., etc., which is appropriate considering in 2012 JP Morgan Chase lost 2 to 5 billion trading derivatives. Of course, compared with the estimated total market in 1995 of \$25 trillion, this is a mere bagatelle. Perhaps this is sufficient to warn the general investor that the field is strewn with financial mines even for the sophisticated.

EN9: *If the investor considers stocks a complex or difficult area [although it is hoped this book will make it less so for him] options are exponentially more difficult. Professionals beat amateurs at that game so thoroughly and so often as to consider it easy money. So, the general investor should be sternly warned that much training and study should be undertaken before becoming fodder for the pros.*

EN9: *Tradestation, the superlatively fine trading system and brokerage operation, distributed at one time an intelligent little book by Charlie Wright, Trading for a Living, which among its other fine points offered a plan for the ongoing allocation of capital to trading.)*

chapter forty-two

Portfolio risk management

As we suggested in the preceding chapter, there is some relation between the state or stage of a Major Market and its potentialities for profit. There are many mechanical plans and systems for coping with the problem, but we do not believe it can be fully solved by mechanical means alone. We mentioned one plan by which the commitments were governed according to the consensus of trends in an entire portfolio of charts. (EN: *The Magee Evaluative Index, or MEI.*) There are other plans dependent on pyramiding the commitment as the trend proceeds, and still others based on averaging costs by increasing the commitment working against the trend, namely, by buying on a scale-down at progressively lower levels in a Bear Market and selling on a scale-up in Bull Markets. (EN9: *Invitations to disaster, the first, and demanding adroit skill, the second. Avoid such methods unless you are an expert position trader.*)

None of the plans, taken by themselves, are adequate to answer the questions of when to buy and when to sell. The primary purpose of this book is to study the technical phenomena of individual stocks. If we can learn from the charts at what points to buy and under what conditions to sell, we have acquired the basic machinery for successful trading. On the other hand, if buying and selling at points that more often than not result in net losses, then it makes no difference how you divide up your capital or apply it in the market, for it will be bound to shrink until, eventually, it has all disappeared. (EN: *An investor who finds himself in this situation should set a benchmark. He should decide if he loses 50% of his capital he will quit trading and put his money in index or mutual funds or in the hands of an advisor. Generally speaking, an advisor is preferable to a mutual fund, yet both are preferable to an investor with two left feet. They can certainly do no worse than a consistently losing performer.* EN10: *On second thought, from the vantage point of 2011, maybe they can.*)

The first problem, then, is to learn to use the technical tools, patterns, trends, Supports, Resistances, and so on. Then we can consider how much money we will risk and in what way.

We have already grasped it makes a difference, sometimes a great difference, how we apply our capital. The various factors of price level, sensitivity, and margin enter into the concept we are going to call the Portfolio Risk. Meanwhile, we have said enough so you will understand what we are driving at if we use the term in connection with your market commitments.

You realize, of course, you do not want to be so conservative to rule out practically all opportunities for making gains. If you decide never to oppose the Primary Trend, you will have to be inactive during long Secondary Trends and may be left waiting, sometimes for weeks on end, for a continuation of the Primary Move. Naturally, you will pass up all weak signals and convergent trends and shun new commitments after very active blow-offs or Panic Climaxes. You could, no doubt, carry your refinement of caution so far that your percentage of success, instead of being a mere 60%, 70%, or 80%, might approach 90%; you might actually be right 95% of the time in your decisions, but this extreme conservatism would also mean you would trade only in the very finest possible situations, when every factor was clean-cut and favorable. You would not have such opportunities very often. The result might be a profit, but too small a profit to justify all the work and study you would be

putting into your charts, for you can obtain nominally respectable returns on your capital without very much study and without much risk, and you must expect a much higher rate of return if your efforts are to be worthwhile.

(EN: These "nominally respectable returns" are obtained by investing in T Bonds and similar instruments. Bond traders and investors traditionally consider these investments "risk free," which is another form of the denial of reality. In reality, as David Dreman has demonstrated (Contrarian Investment Strategy, Simon & Schuster), bonds are a kind of deteriorating asset because of the unarrestable depreciation in the commodity-denominated value of currency.)

To put your charts to work, you have to avail yourself of the higher leveraged stocks that carry more opportunity for gain, hence, more risk of loss. You have to accept, deliberately, a greater risk than the man who is content to buy a "safe" security, put it in the box, and forget it.

By maintaining your Portfolio Risk at or near some constant level that your experience and judgment tells you is safe for the particular state of the market, you will be protected against overcaution and irrational exuberance. More important, if you maintain this risk posture in your operations, you will be protected against unconsciously overtrading. This is a fault more common than extreme caution and can be a dangerous enemy even when your percentage of theoretical trading gains is high. When you select a definite Portfolio Risk Strategy and adhere to it in your trading commitments, changing it as necessary to meet changed conditions, you will be forced to restrain your enthusiasm within safe limits, and you will be continually aware of the risks you are taking.

Overtrading: a paradox

A series of identical percentage gains and losses on your capital does not give you a series of equal gains and losses in dollars and cents. This is a serious problem, worth understanding, for a trader who is greatly overextended is intensifying this problem (which exists in any case, but which does not need to cause him too much worry if he has planned his program).

You can understand the paradoxical statement that percentage gains and losses are not equal if you take the extreme case, first, of a man, who, in every business venture he enters, risks his entire capital with the expectation of either a 100% gain or a 100% loss. If this first venture is a loss, he loses 100%. He is finished, because he cannot gain by making 100% on nothing. However, if the first venture is successful and he then uses his entire capital, including the new profits, again on the same terms, and the second venture is a failure, he will be wiped out completely. No matter how many successes he may have, he stands to lose everything on his first failure.

In a lesser degree, this is the situation in which we speak; you would not risk all of your capital on the basis of doubling your money or losing all. Though, suppose you were extended, continually, to a point at which you were taking the risk of a 40% net loss on each transaction, with the hope of a 40% net gain. Should you start with \$1,000 and have a succession of 10 losses, you would wind up with about \$6.00. Now suppose the very next 10 transactions were all successful. You would finally come out, after 10 losses and 10 gains, each of 40%, with capital of less than \$100. It would not be necessary either that these 10 losses and 10 gains come in the order given. You might have the 10 gains first, or three gains, four losses, seven gains, and then six losses. The result would be the same. After 10 gains and losses, in any order, you would have lost more than 90% of your capital.

On the other hand, if you risked your entire capital each time on 20 ventures, in 10 of which you took an 8% net gain and in 10 an 8% net loss, your \$1,000 after the 10 gains and losses would be reduced only to \$937. You would still have about 94% of your original

capital. Therefore, in this case (and 8% is a fair average figure for short-term transactions resulting in a loss, in fact, a rather liberal figure according to extensive tabulations of actual transactions), you would have a handicap due to this paradox of only about one-third of 1% on each trade.

Now it is conceivable that 10 successive trades *might* go wrong, although that would be an unusual condition. There was one period of 10 months between the actual turn of the market and the Dow Signal for a Reversal of the Primary Trend. True, the resulting new trend, once established, ran far and long, and it would have made up all losses and produced fine profits; however, during the 10 hard months, allowing the fair average time of 30 days per transaction, it is possible that 10 successive wrong-way trades might have been stopped out for losses, reducing the original \$1,000 to \$434.

The important thing is that the next 10 successful trades would have brought this \$434 back to \$937; in other words, you could have righted the boat and sailed right on if you were working on the 8% basis, whereas if you had been following the 40% basis we gave previously as an example, you would have been sunk without a trace, a victim of overtrading.

Therefore, by maintaining a sane Portfolio Risk Strategy and letting the law of averages work for you and with you, you will be on solid mathematical ground. Your technical studies will have every opportunity to make you a profit. Otherwise, you can, simply by unwise overextension of your trading, prevent even the best technical analysis from producing a net profit.

EN: John Magee could easily be called the father of modern investment theory but modern investment theory is so unenlightened as to technical analysis that academics largely have not recognized his contributions—and many probably have not read his work. If they had, he would be recognized as having identified what theorists now call systematic risk, and what is now called the beta (Greek letter β) with his concept of the Sensitivity Index. Similarly, his work on Composite Leverage precedes (and may be more practical than) modern Portfolio Risk analysis, if cumbersome in the modern context.

Systematic risk, simply put, is market risk in aggregate; beta relates the individual instrument risk to the market. Thus, Magee's Sensitivity Index did what beta calculations do—relate instrument behavior to market behavior. A stock with a beta of 1 will move up or down 1 point for each 1 point of market move. A 1.5 will move 1.5 for each 1 point of market move, and a 0.5 will move 0.5 for each 1 point of market move. This number tells us immediately which stocks are more volatile and sensitive to aggregate market behavior.

Composite Leverage was Magee's method of determining how much risk the investor was assuming in a stock or portfolio.

The formula was (is) as follows:

$$CL = \frac{SNT}{15.5 \times C}$$

$$15.5 \times C$$

where S = the Sensitivity Index, N = Normal Range-for-Price (an attempt to quantify volatility), T = Total Paid, C = Capital dedicated to this commitment, 15.5 a constant Magee called a Market Reciprocal, a sort of proxy for market volatility. The same formula, using sums, was used for Portfolio Composite Leverage. The number that falls out of this formula quantifies risk for Magee and uses concepts that are extremely modern.

In his original exposition of Composite Leverage in this chapter, Magee made use of some cumbersome manual chart procedures and tables that I have relegated to Appendix A in the eighth

and ninth editions, and deleted in this edition. There is nothing invalid about them, even now, I feel, but there might be simpler and more convenient ways for the present-day trader to assess his leverage, risk, and profit exposure. One of these is certainly utilizing Value at Risk (VAR) technology. However, there might be simpler more pragmatic (and even more effective) ways of extracting this information from our trading portfolios. In short, Pragmatic Portfolio Theory and practice, which we will explore shortly.

Volatility, for example, tells us something about the risk of a stock insofar as the dispersion of returns. Portfolio volatility gives us a way of measuring the riskiness of a group of stocks. In researching our systems and methods, we should be able to get some handle on “drawdown,” or the average and largest negative swings against our equity in an account. Simple conclusions follow: if we are willing to accept larger risks, we pick a portfolio of volatile stocks—a portfolio of Internet (or whatever the current frenzy is) stocks rather than a portfolio of utility stocks.

It is indispensable to maintain a regular periodic review of portfolio statistics to assure oneself that excessive risks are not being undertaken heedlessly. These important numbers include the following:

- Original risk per trade
- Actual realized loss
- Average (and ranges) loss and profit per trade and their relationship (average profit divided by average loss)
- Number of winning and losing trades and their ratio
- Time in winning and losing trades (long-time trades combined with oversize losses is an ominous sign)
- Equity swings: average drawdown, maximum drawdown
- Costs and expenses, summation, and per trade
- Daily risk, yearly risk, and catastrophic risk, as computed by Pragmatic Portfolio Theory (as discussed below)

Risk of a single stock

The beginning of conventional, or academic, analysis of risk is the examination of volatility.

The formula for calculating the volatility of a stock (or downloading it) was discussed in [Chapter 24](#). As a theoretical exercise, the formula and the theory make certain assumptions that are not necessarily of interest to the pragmatic practitioner. One of the assumptions is the holder chooses to accept the inherent volatility of the stock at hand. Except the point of technical analysis is to limit the risk accepted while attempting to realize profit opportunities. Thus, the volatility of a stock, its (academic) risk, is 0.30% or 30%, but when we trade it, we put a stop loss on it and only risk a move of (say arbitrarily) 5%–8% against our position (where the 5%–8% sums to 2%–3%, or x% of total capital.) Thus, our method of risk control is basically more dynamic than the theory. Nonetheless, volatility will give us a measure of the stocks that make interesting trading vehicles.

It is perfectly possible to take our own experience with a stock or our system’s experience with a stock and calculate its volatility to ourselves, using the method described in [Chapter 24](#). If the dispersion of its returns (in our trading) was greater than our appetite, we could then eliminate it from our watch list. To my knowledge, the literature does not mention this method for customizing our analysis of risk. Use of a customizing procedure like this would give us an idea of the reliability of our methods in a particular case. Stocks that did not behave would be banished to the portfolios of mutual fund managers.

We subscribe to a much more pragmatic and practical concept of risk. Risk is, to us, drawdown, or the probability of loss. Volatility qua risk is static and non-descriptive of the “risks” we take

in trading and investing. We will choose a volatile stock or instrument because that is where the profit opportunity is—in movement. Less risk-oriented investors will choose utility stocks. As some carnival goers choose the Ferris wheel and others the roller coaster. The probability of an exciting ride will be in the volatile instruments. Our skills as traders give us the confidence to manage the probabilities of the more “dangerous” instrument.

By measuring the drawdowns, we empirically measure the risks of trading.

Risk of a portfolio

If you have sufficient experience with a portfolio, you can calculate its volatility the same way you calculate the volatility of a stock using the method in [Chapter 24](#). Note Modern Portfolio Theory (MPT) has a complex procedure for computing portfolio volatility. (The value of MPT may be computed by examining MPT portfolios after a market collapse.) You may also dramatize the volatility of your portfolio by preparing a frequency distribution. The dispersion of the returns would certainly highlight characteristics of your trading system or style.

Academicians and investment managers use a measure called the Sharpe Ratio to compare the performance of two systems or competing money managers. It is discussed in Appendix B, Resources, and has deficiencies in analyzing Portfolio Risk. I will address this question later in this chapter after looking at some of the ways professionals treat risk.

The reader may judge for himself in the use of Composite Leverage as presented in Appendix A of the ninth Edition by Magee, or he may consider the following brief presentation of modern portfolio management and risk analysis. The purpose of Magee’s Composite Leverage is to measure and control risk and profit exposure in a more or less quantitative manner. Present-day portfolio managers might use VAR technology or do this as follows. The editor offers this exposition only for perspective. His own preferred method, Pragmatic Portfolio Theory, follows thereafter.

EN9: Risk and trend

*Risk of a portfolio and risk of a stock are affected by being the right way in the trend. It seems intuitive and it is observable that losses (thus risk) expand in an Enron case in which the trader remains long while the stock dies. The converse is also true; Risk is diminished to a portfolio and a stock when it is with the trend. In a paper submitted to the Market Technicians Association (<http://www.mta.org>), “Dissecting Dow Theory,” Bassetti and Brooker argue (with some success in the opinion of this editor) that risk can be proved to diminish in the Industrials when the portfolio (of Industrials) is with the trend as identified by Dow Theory. This paper is available at the Magee website, <http://www.edwardsmagee.com>. The paper was subsequently expanded into the book, *Sacred Chickens, the Holy Grail and Dow Theory*.*

Value-at-Risk procedure

(EN: VAR is a method of assessing and controlling risk. Particularly, VAR measures the worst expected loss over a given time interval under normal market conditions at a given confidence level. This rather complex statistical process is in use in numerous banks, American and European regulators in Basel and at the Federal Reserve have largely accepted it as an acceptable risk control procedure. The hole in the procedure is in the words “normal market conditions.” The procedure is based in MPT. As Mandelbrot has remarked, MPT ignores 5% of market data, treating market collapse as if it did not exist. VAR and MPT both ignore trend risk, as though it does not exist.

As a brief description of the VAR procedure, I offer the following: returns of the individual securities are determined and, from these, returns of the portfolio are calculated. This is done based on some time period for which the portfolio is held. Thus, from day to day the returns, or changes in value, of the portfolio will vary—some positive and some negative. Taking a totality of returns, an average return will be determined. A frequency distribution of returns may be constructed. The width of this frequency distribution measures the riskiness of the portfolio. Thus, a portfolio with a minimum return of 1% and a maximum return of 8% is inherently less risky (according to investment theory) than one with returns varying from -1% to 20%. Although a frequency distribution is illustrative, it does not give us a common measure for two different portfolios. That is done by determining the volatility of the portfolio.)

Volatility measures the deviation of returns from the mean, known as the standard deviation and is indicated by the Greek letter sigma (σ). (EN: The higher the volatility of a portfolio the greater its risk, according to the academic theory. This would seem to be intuitive, in that a commodity portfolio might range from -30% to 100% returns because of leverage, whereas a bond portfolio would vary only by the market price of the bonds and would return face value at maturity. In calculating bond risks, managers ignore the deterioration of money—but that is a little secret among us pragmatic analysts and we need not bother academicians and bond traders with that information, as they would not want to know it anyway.)

As pointed out, portfolio volatility can be easily obtained if we have sufficient experience with the portfolio. If we have to calculate the volatility, the procedure gets quite complicated and the entire procedure for determining our VAR requires some statistical sophistication as well as a gamut of data. We must weigh the components of our portfolio, determine their correlations, compute correlation coefficients, and on and on. As Mandelbrot notes in *Scientific American*, at the end of all this, we would still be wondering what to do in the Perfect Storm. A crystal-clear procedure for computing VAR is presented in Philippe Jorion's excellent book *Value at Risk*.

Pragmatic Portfolio Theory (and practice)

Perhaps, rather than giving ourselves headaches trying to remember college statistics, we should look for something simpler and more pragmatic—something just as serviceable for the general investor: Pragmatic Portfolio Theory. The academic world, and the world of rarefied Wall Street, strives madly to quantify everything in the world except the risks and liabilities that they themselves create for their customers.

Let us seek simpler methods to quantify the risks of individual stocks and the portfolios they reside in, knowing all the time that absolute precision is impossible (namely, professional portfolio managers' performance in the Great Panics—1929, 1957, 1987, 1989, 2008–2009; Long-Term Capital Management, which almost brought down the world financial system in 1998; and Leland O'Brien Rubinstein Portfolio Insurance, which contributed significantly to the Reagan Crash in 1987).

Pragmatic portfolio risk measurement

Determining the risk of one stock

The theoretical risk of a stock is commonly agreed to be its volatility, which is determined as detailed in [Chapter 24](#). Subsequently, we might say the theoretical risk of our stock, Microsoft, for example, equals on 100 shares, our position, at the market price of 120 and annualized volatility of 0.44:

$$\text{Theoretical Risk} = \text{Volatility} \times \text{Position} \times \text{Price}$$

$$V \times Po \times Pr = T\$Risk$$

$$.44 \times 100 \times 120 = \$5,200$$

where

$T\$Risk$ = Theoretical Risk (dollar)

V = Volatility

Po = Position (number of shares)

Pr = Price

Theoretically speaking, the annual risk for Microsoft should be Volatility \times Price or (in 2000) 0.44×120 or \$52.00. In fact, those non-chart analysts who bought Microsoft at 120 (there were some), and who did not have the technician's ability to set a stop and discipline to stick to it, saw a risk of 50% from its top of 120 in February 2000 to its (presumed) bottom of 60 in June 2000.

There is another measurement that might be more meaningful to us, Operational Risk. Operational Risk refers to the specific instance of the particular trade. For example, we have taken an initial position in Microsoft of 100 shares. Our analysis has identified a stop point at which we put our stop, which is 5% away from the market price. Our Operational Risk is as follows:

$$\text{Operational Risk} = \text{Market Price} - \text{Stop Price} \times \text{Position}$$

$$(MP - S) \times Po = O\$Risk$$

$$(120 - 114) \times 100 = 600$$

where

$O\$Risk$ = Operational Risk (dollar)

MP = Market Price

Po = Position

S = Stop Price

Determining the risk for a portfolio

Computing the theoretical risk for a portfolio is quite a complex process. It involves, in essence, finding the volatility for the portfolio as a whole, and multiplying the portfolio market value by the portfolio volatility. This does not sound so complex, but volatility is not determined by simply adding together volatilities of individual securities. Rather, correlations between instrument returns must be computed, and variance and covariance of securities must be determined as steps along the way. This by no means presumes to be a complete description of the process, further study of which may be guided by entries in *Appendix B, Resources*.

The theoretical risk for a portfolio is, for a simple case, as follows:

$$\text{Volatility} \times \text{Market Value}$$

$$TP\$Risk = MV \times V$$

where

$TP\$Risk$ = Portfolio Theoretical Risk (dollar)

MV = Market Value

V = Volatility

Under normal market conditions, the Operational Risk of a simple Portfolio, PO\$Risk, may be calculated by first taking the sum of the Operational Risk figures, O\$Risk, for each stock held long. Then the sum of O\$Risk for short positions is subtracted from the first figure.

$$PO\$Risk = (\text{sum of O\$Risk longs}) - (\text{sum of O\$Risk shorts})$$

In the situation of perfect negative correlation, the two factors would be summed.

Measuring maximum drawdown (maximum retracement)

In the designing and testing of a system, or in actual trading experience, we care little about standard deviations and cold statistics. What bothers us is the flow of blood—the worst run of “luck” or experience we have. What is the greatest sustained loss we suffer before our system or trading method rights itself, stanches the flow of blood, and begins to accumulate profits again? Constructing a wave chart is one way to look at this experience.

Measuring from the top of the wave to the bottom gives us our maximum drawdown, and an idea of what amount of capital we need and how much reserves to maintain. It also gives us a vivid depiction of our results. A chart with many tsunamis (in the wrong direction) probably means we need to modify our methods—unless we genuinely enjoy riding roller coasters (with the full understanding that dreadful accidents do sometimes happen on thrill rides). If constructing a system without actual market experience, one should multiply maximum drawdown by 3 or 4 to get a reasonable amount of capital with which to back the system.

Pragmatic portfolio analysis: measuring the risk

In analyzing a portfolio, we must first know what is important to measure. To be able to control risk, we must be able to measure it. Theoreticians identify risk with volatility. There are some real-life problems with this concept, but we will use it for the moment anyway. In a portfolio, we want to be able to separate our various types and weights of risk. In terms of volatility, bonds are obviously less volatile than stocks, and unleveraged commitments are less volatile than, say, futures. Similarly, if the portfolio is not risk balanced, that is, if one issue represents a large proportion of the whole, then it represents a larger portion of the risk. But, if a portfolio consisted of only the Standard & Poor's 500, that would obviously be a different case, because a commitment like this would be by definition diversified. Thus, we must know what is important to measure (see Philippe Jorion's Value at Risk. In addition, there is a piece of tutorial software called Risk Management 101, Zoologic Corp., which is excellent in presenting these concepts).

In operational or pragmatic terms, a trader wants to know what his operational risk is, rather than his theoretical risk, and does not consider upside equity volatility a negative. A trader may choose to measure risk by the pragmatic method outlined here. In doing so, he will want to know for his Portfolio Ordinary or Normal Risk, POR, his Risk Over Time, PRT, and his Extraordinary or Catastrophic Risk, PCR.

Portfolio Ordinary or Operational Risk

“Ordinary” and “Operational” may be used interchangeably when discussing daily risk. First consider we want to measure our risk today. Our Ordinary Risk today is easily computed by taking the stop price from the market price on each position and summing the differences, as above. Dividing this figure by the allocated capital (Total Capital, TC) will give us a Portfolio Risk Factor (PRF), which is the risk factor the trader is willing to assume for one day.

$$POR = \text{sum of differences}$$

$$PRF = PO\$Risk/TC$$

Portfolio risk over time

The Daily Operational Risk number can be annualized to give us a number for risk over time—or it can be computed for a week or a month, and so on. Or, this factor may be collected from operations. It may be collected by taking each day's Ordinary Risk, summing and dividing for the desired time period (and plotted). It also may be computed by taking the average return and the variances therefrom and calculating the standard deviation. This is Risk Over Time. Annualized risk, for example:

$$DR \times (\text{square root } 365) \text{ where } DR = \text{Daily Risk}$$

Portfolio extraordinary or catastrophic risk

Extraordinary Risk is the risk of market collapse or panic on any given day. The way to look at this risk is, first of all, to assume normal behavior of the markets, or your everyday panic. In this case, if all of one's positions cratered, one would take his worst-case, one-day loss and be out of the market. To extend this analysis, assume the market makes a two, then four, then six standard deviation move. What will be the effect on your position in this event, when stops will not be honored by specialists and market makers and the market will be stampeding like spooked cattle for the exits? That is, meltdown. This is Extraordinary or Catastrophic Risk. If you have no capital reserve you are out of business.

Controlling the Risk

The most danger in these meltdown events is in the greatest leverage—so the greatest risk is in short options—and usually short puts. You will remember my story of my customer at Options Research Inc. who lost \$57 million during the Reagan Crash of 1987; he was short puts. Some market makers have been destroyed by shorting calls, but the case is rare and specifically results in the case of takeovers and unwise concentration of commitments in one issue only.

The least risk lies in being hedged. To oversimplify, long the stock, long the put. The profit of one makes up for the loss on the other. Also, if one were long some stocks and short others, that also is a kind of hedge. Or long the Dow and short futures on the Dow, or some of its components.

Now, let us be pragmatic; if during the management of our portfolios we consistently measured the market with the MEI and balanced our portfolio accordingly, we will be at less risk, both from the Ordinary and the Extraordinary viewpoint. In fact, we may profit from an event that disemploys many professional money managers.

If you have been religiously raising your stops, following the market with progressive stops, and in fact raising them on the basis of new highs as described in [Chapter 28](#) (the three-days-away rule), it is quite possible that while the market is storming, you will be sailing to Byzantium in your customer yacht.

Summary of Risk and Money Management Procedures

The procedures described above are easily reducible to simple formulas, even for the math phobic. Trade size is the basic unit for controlling risk. Regardless of volatility, 500 shares of anything is riskier than 100 shares.

To determine trade size, take the difference between the entry price and the stop price, giving Dollar Risk 1 (\$R1). Take the Risk Control Factor, the percentage of total capital to be ventured on the trade, and multiply times Total Capital—for example, 3% times TC of \$100,000, giving Risk-per-Trade. Divide Risk-per-Trade by Dollar Risk 1 to determine Trade Size.

$$EP - SP = \$R1$$

$$RCF \times TC = RpT$$

$$RpT/\$R1 = TS$$

where

TS = Trade Size

EP = Entry Price

SP = Stop Price

\$R1 = Dollar Risk 1

RCF = Risk Control Factor

TC = Total Capital

RpT = Risk-per Trade

Measure daily Operational Risk as described above. Divide Operational Risk by Total Capital to determine Portfolio Operational Risk Factor. If this factor is too high, look for hedges or positions to eliminate, starting with those that are underwater.

Recompute stops frequently (daily for a trader), raising them according to the Basing Points Procedure, Support and Resistance, or Trendlines. Additionally, a money management stop may be employed, where the trader says, for instance, no more than 8% from the market price will be risked and this 8% must represent no more than x% of total capital. Money management stops, it should be noted, are inherently less dynamic than technically placed stops.

As the markets proceed inevitably through their phases, track their internal composition with the MEI, and as positions are naturally terminated, put on new positions in accord with the general long and short strength readings of the MEI. Remember that exceptionally high MEI readings coincide with broad market tops, and exceptionally low MEI readings coincide with broad market bottoms.

Professional risk managers compute daily the Extraordinary Risk potential in the markets using the procedure described in this chapter to constrain traders under their authority from overexposure. In fact, panics and crashes rarely occur out of the blue. There is almost always a pre-panic phase the truly alert trader can identify, especially with the aid of a computer; these are marked by insider and professional selling that creates increasing volume with Reversal Days occurring in many stocks and Gaps and Runaway down days. Almost always, these conditions will be preceded by many top formations among key stocks—Double and Triple Tops and Heads-and-Shoulders and V-Tops.

Eternal vigilance is the cost of freedom. It is also the cost of investing success.

Infinitely more sophisticated risk and money management procedures—Ralph Vince and optimal f

Undoubtedly, one of the most sophisticated analysts now practicing is Ralph Vince, author of *The Handbook of Portfolio Mathematics* and progenitor of the Leverage Space Model. He defines risk as we do, as drawdown, not as the variance of returns. His procedure for determining trade size is extremely sophisticated—more so than the procedures I have outlined here. Although I feel these procedures meet the needs of the general investor, Vince's procedure is must reading for the more sophisticated investor and trader. He has described the Leverage Space Model in a short article found in Section 8 of Appendix B, Resources.

chapter forty-three

Stick to your guns

It has often been pointed out that any of several different plans of operation, if followed consistently over a period of years, would have produced consistently a net gain on market operations. The methods we have discussed in this book (representing the technical approach) are a case in point.

The fact is, however, that many traders, not having set up a basic strategy and having no sound philosophy of what the market is doing and why, are at the mercy of every Panic, boom, rumor, tip, in fact, of every wind that blows. Since the market, by its very nature, is a meeting place of conflicting and competing forces, they are constantly torn by worry, uncertainty, and doubt. As a result, they often drop their good holdings for a loss on a sudden dip or shakeout; they can be scared out of their short commitments by a wave of optimistic news; they spend their days picking up gossip, passing on rumors, trying to confirm their beliefs or alleviate their fears; and they spend their nights weighing and balancing, checking, and questioning, in a welter of bright hopes and dark fears.

Furthermore, a trader of this type is in continual danger of getting caught in a situation that might be truly ruinous. Since he has no fixed guides or danger points to tell him when a commitment has gone bad and it is time to get out with a small loss, he is prone to let stocks run entirely past the red light, hoping the adverse move will soon be over, and there will be a "chance to get out even," a chance that often never comes. What is more, even should stocks be moving in the right direction and showing him a profit, he is not in a much happier position because he has no guide as to the point at which to take these profits. The result is he is likely to get out too soon and lose most of his possible gain or overstay the market and lose part or all of the expected profits.

If you have followed the preceding chapters carefully, you will have realized none of the technical formations and signals is certain and unfailing. The chart action of a stock discounts and records *all presently known* information about that stock (which *includes* all matters of dividends declared or expected, split-ups, and mergers that are known to be planned, political angles as they affect the market, world affairs, management, earning records, and so on). The chart does not and cannot forecast unforeseeable events, matters that are completely unknown to anybody. In a majority of cases, the charts are dependable. If you are not satisfied this is true, you should study further, or else plan not to use charts at all.

On the other hand, if you are satisfied the charts are, for you, the most dependable indication of the probable future course of stock prices, then you should follow explicitly the signals given on your charts, either according to the rules we suggest here or according to such other rules and modifications as your experience dictates. Nevertheless, while you are following any set of rules and policies, follow them to the letter. It is the only way they can help you.

If you do this, you will have certain large advantages, right at the start: (1) you will never be caught in a situation in which a single stock commitment can wipe out your entire capital and ruin you; (2) you will not find yourself frozen in a market that has turned against you badly, with a large accumulated loss and your capital tied up, so that you cannot use it in the reversed trend to make new and potentially profitable commitments;

and (3) you can make your decisions calmly, knowing exactly what you will be looking for as a signal to take profits, and knowing also that your losses, at the very worst, will be limited to a certain definite amount.

All of this means you will have peace of mind. You will take losses and you will make gains. In neither case will you have to take your notebooks home and lie awake worrying. You will have made certain decisions. If developments prove you were right, you will, at the proper point, take your profit. And if it turns out that you were wrong, then you can take your comparatively small loss, and start looking for a better situation, with your capital still largely intact, liquid, and available.

Your job, as a speculator, is to provide liquidity in the market and to counteract the irrational excesses of market-in-motion. Part of that job is to keep yourself free to become liquid whenever it is necessary to reverse your position. It is part of your job to keep yourself free from irrational and excessive emotional actions. If you do this intelligently and consistently, you will be performing a useful and necessary service to the general economic welfare, and you will find the market offers as good or better returns for your efforts as any other line of endeavor.

(EN9: With the ninth edition, I expect the reader will have some powerful new guns to stick to: new lessons in Basing Points that show what a powerful procedure it can be; new analyses of Dow Theory that refresh and reinforce the validity and persuasiveness not just of the Theory, but also of long-term investing as such. EN10: And a host of new stop systems to work with. Good trading and stick to all your guns!)

Appendix A: The Dow Theory in practice

EN10: This appendix appears as [Chapter 4](#) in the ninth edition.

EN9: The casual and careless reader will shake his head at this chapter and ask why on earth the editor has not excised it from the book. The editor has not deleted the chapter because, like old-fashioned cod liver oil, it is good medicine. It will appeal mainly to the serious student of not just Dow Theory but also of long-term investing. If the reader has absolutely no interest in Dow Theory or long-term investing, he may skip over this chapter and return to it in his old age, when he is wiser.

At this point, the reader, if he has little previous knowledge of the stock market, may be suffering a mild attack of mental indigestion. The Dow Theory is a pretty big dose to swallow at one sitting. We departed deliberately in the foregoing chapter from the order in which its principles are usually stated in an effort to make it a little easier to follow and understand. Actually, not all of the 12 tenets we named are of equal import. The essential rules are contained in 2, 3, 4, 5, 8, 10, and 11. Number 1 is, of course, the basic assumption, the philosophical justification for these rules. The other points (6, 7, 9, and 12) furnish “background material,” as the news reporters might put it, which aid in interpretation. Theoretically, one should, by strict adherence to the essential rules alone, accomplish just as much as he could with the added collateral evidence. (For illustrations in this appendix, see [Figures A.1](#) through [A.9](#))

However, the utilization of Dow Theory is, after all, a matter of interpretation. You may memorize its principles verbatim and yet be confounded when you attempt to apply them to an actual market situation. We can better organize our knowledge of the theory and acquire some understanding of its interpretation by following through a few years of market action and seeing how it looked at the time through the eyes of a Dow theorist. For this purpose, we may well take the period from late 1941 to the beginning of 1947 because this covers the end of one Bear Market, an entire long Bull Market, and part of another Bear Market, and includes examples of most of the market phenomena with which the Dow Theory has to deal.

Five years of Dow interpretation

[Figure A.2](#) is a condensed chart of the course of the two Dow–Jones Averages from January 1, 1941, to December 31, 1946, on which most of the Minor Trends have been disregarded but all the recognized Intermediate Swings (Primary and Secondary) have been indicated. Certain portions of this history will be supplemented by complete daily charts in connection with our detailed discussion that follows.

The year 1941 opened with the stock market in a Minor Rally. A Primary Bear Market had been signaled when prices collapsed in the spring of 1940 and that Bear Market was

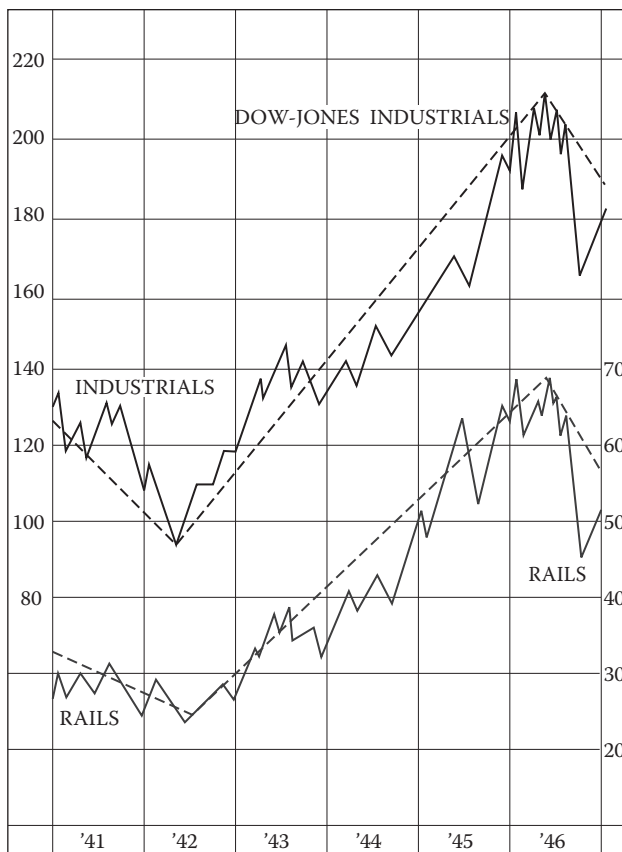


Figure A.1 “Swing” (EN: or Wave) chart showing all the Intermediate and some of the more extensive Minor Trends of the Dow-Jones Industrial and Rail Averages, January 1941 to December 1946. Industrial price scale left, Rails right.

still in effect. After the May Panic had ended, a Secondary Recovery swing, which lasted for more than five months, had regained more than half of the ground previously lost by the Averages, carrying the Industrials from their closing price of 111.84 on June 10 to 138.12 on November 9 and the Rails from 22.14 on May 21 to 30.29 on November 14. (During this long Bear Market Secondary, incidentally, volume tended to increase on rallies, which encouraged many who did not hold strictly to first principles to believe that this rise was the beginning of a new Bull Trend, illustrating the point we cited under “Volume” in [Chapter 3](#).) From the November highs, however, the trend turned down again. Then a Minor Rally developed, as stated, at the end of the year, reaching its peak on January 10 at 133.59 in the Industrials and 29.73 in the Rails. From there, prices fell again to 117.66 and 26.54, respectively, on February 14.

The first severe test

The next few months will be particularly interesting for us to trace because they put the Dow Theory to a real test. [Figure A.3](#) shows the daily ranges and closing prices of the two Averages and total daily market volume for the seven months from February 1 to

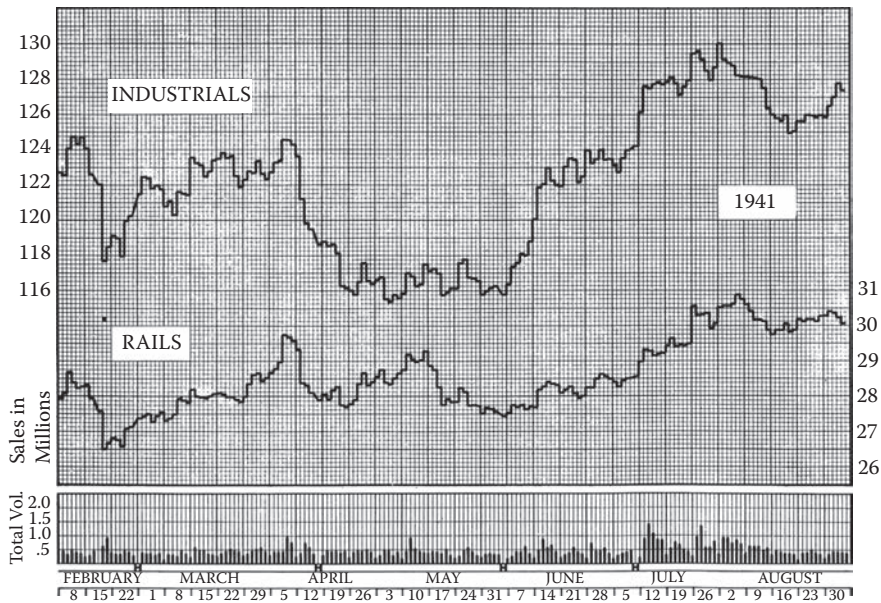


Figure A.2 Closing price levels of the Dow-Jones Industrial and Rail Averages, February 1 to August 31, 1941, and total daily market volume. Vertical lines show net daily change from one closing level to next.

August 31, 1941. Before we examine it in detail, however, let us first review the situation on February 14. The Bear Market lows to date had been registered in May–June, 1940. Thereafter, an extended Intermediate Recovery had advanced the Industrial Average 26.28 points and the Rail Average 8.15 points. This had been followed by a three-month decline of 20.46 and 3.75 points, respectively, and this decline, incidentally, had consisted of three well-defined Minor Waves. In duration, and in extent of price change with respect to the previous swing—46% in the Rails and nearly 78% in the Industrials—this downswing qualified as an Intermediate Trend, and now prices were turning up again. Dow theorists were on the alert. If both Averages could continue their rise to levels above their high closes of the previous November (138.12 and 30.29), that action would constitute a signal of a new Primary Bull Market, and reinvestment of funds withdrawn from stocks in May 1940 would be at once in order. Also, it would then be necessary to go back and label the May–June lows of 1940 as the end of a Bear Market, the advance to November as the first Primary Swing in the new Bull Market, and the decline to February as its first Secondary Reaction. Note Rule 12 of our preceding chapter (*EN11: Chapter 3*) applied here; the presumption was it was still a Bear Market until a definite signal to the contrary appeared.

Let us now turn again to [Figure A.3](#) and see what actually did happen. The Industrials rallied for six weeks, reaching 124.65 on April 3. The Rails got up to 29.75 on the same date, registering double the percentage gain of the Industrials, but both Averages were still below their November highs. Then the Industrials slipped off within two weeks and had broken down below their February low and drifted down to close at 115.30 on May 1. This Average was, therefore, still in an Intermediate Downtrend. The Rails, meanwhile, were staging a different sort of performance; they dropped back from their April 3 high for two weeks, but held at 27.72, rallied smartly and then sold off again to 27.43 on May 31. The picture became at once even more

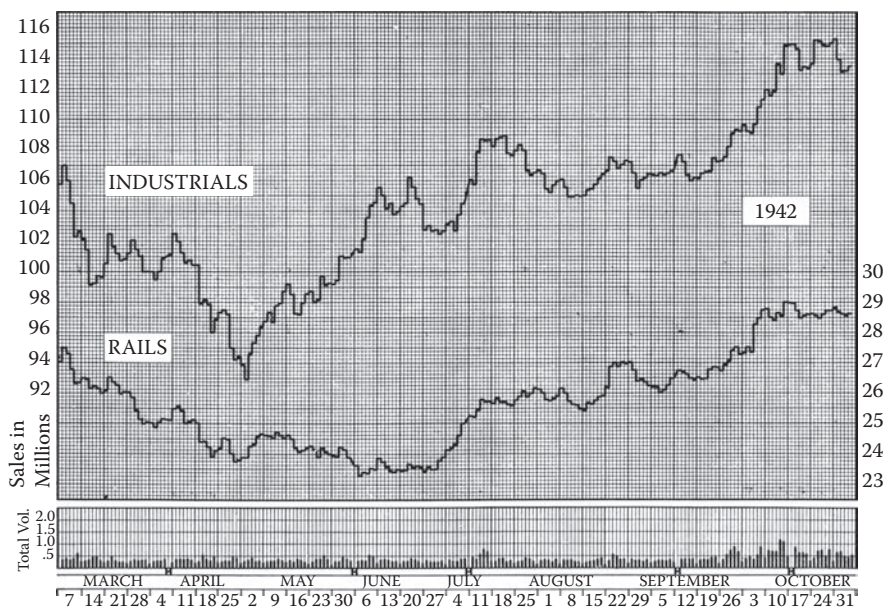


Figure A.3 Daily closing price levels of the Dow-Jones Industrial and Rail Averages from March 2 to October 31, 1942, and total daily market volume. This period saw the beginning of a 4-year major bull market.

interesting. Here was a Divergence between the two Averages, a failure to confirm; the Rails, after two opportunities, were refusing to confirm the Industrials in the latter's downtrend.

Failure to confirm

When prices began to work upward in June, many commentators seized on this "failure to confirm" as a Bullish omen and the wishful thinkers again talked Bull Market. There is an unfortunate tendency in the Street to overstress any such divergence, particularly when it can be twisted into a favorable sign. The fact is Dow Theory's refusal of one Average to confirm the other can never produce a positive signal of any sort. It has only negative connotations. Divergences sometimes occur at Reversals in the Major Trend—there have been several instances in market history, in which, perhaps, the most remarkable occurred way back in 1901 and 1902, and we shall soon inspect another—but they also occur with equal frequency at times when no Major Reversal is developing, and the instance we are discussing here was one of the latter.

The situation at the end of May in 1941 was precisely the same to the Dow theorist, insofar as the Major Trend was concerned, as it had been on February 14. The June-July rally topped out in the Rails at 30.88 on August 1, and in the Industrials at 130.06 on July 28 (compare these figures with their 1940 November highs) and prices then declined at an accelerating pace, temporarily culminating in the Pearl Harbor Panic. This took the Industrial Average below its previous Bear Market low (111.84 on June 10, 1940), although the Rails, again, did not follow. They had, however, by this time, broken below their previous (February 14) Intermediate Bottom by a liberal margin.

The next period of importance began in April 1942. We can skip any detailed chart of the months between December and April because they posed no Dow Theory problems.

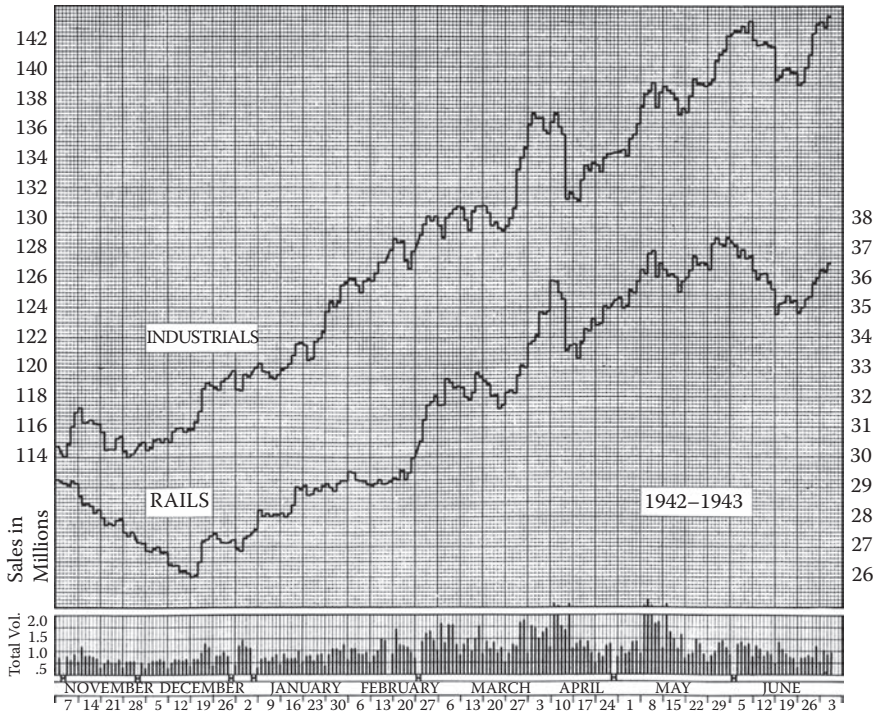


Figure A.4 Daily closing price levels of the Dow-Jones Industrial and Rail Averages from November 2, 1942, to June 30, 1943, and total daily market volume.

After a Minor Rally in the Rails in January, prices simply drifted lower and lower, but it was increasingly evident that trading volume did not expand on the dips (Minor Declines). Liquidation was drying up; the boardrooms were void of customers; the atmosphere was typical of the last stages of a Bear Market.

The daily action of the Averages from March 2 to October 31, 1942 is shown in [Figure A.4](#). New lows (since 1940) were registered both in late April, at 23.72 on April 24 in the Rails and at 92.92 on April 28 in the Industrials. Shortly thereafter, a notable Divergence developed, when, after rallying for only seven days, the Railroad Index began to slip off while the other Average kept right on going up. Trading activity remained at a low ebb (there was no sustained volume increase, in fact, until late September). On June 1, the Rails dropped to another new low and on the 2nd closed at 23.31. On June 22, it looked as though the Industrials were going to be pulled down again, but only a few days later, the best rally in months got started, taking the Industrials to new highs and more than recovering all of the April-May loss in the Rails. Activity also speeded up briefly, with one day registering a greater turnover than the market had enjoyed in any session since early January. (EN9: *Note this warning sign. The ringing of an alarm clock.*)

Signs of Major Turn

Again, the Dow theorists were very much on the alert. An advance of Intermediate proportions was obviously under way. Until proved otherwise, it had to be labeled a Secondary within the Bear Market, which was still presumably in effect, but that Major

Downtrend had by now run for nearly three years—nearly as long as any on record—and its last decline had shown no selling pressure whatever, simply a dull drift. This presumed Secondary might turn out to be a new Primary; hopes for such a denouement had been blighted 12 months earlier under somewhat-similar circumstances, but this time prices were lower and there was a different “feel” to the market. The general news offered little encouragement, but the Dow Theory does not concern itself with any news other than the market itself (which discounts all other kinds of news). In any event, there was nothing to do but wait and see—let the market, in its own time and way, state its own case.

In early July, the Industrials started to “mark time”; for 11 weeks, they fluctuated within a 5-point range, building a typical Dow Line from which they emerged on the upside in late September. The Rails pushed up to a new high for the move at the same time, and by November 2, both Averages had surpassed their Rally Tops of the preceding January. At this stage, some Dow theorists were willing to announce a Bull Market had been signaled. Their arguments, aside from points of a nontechnical nature or having nothing to do with Dow Theory, were as follows:

1. The conspicuously low level of volume at the April–June Bottom, typical of the end of a Bear Swing. (True and cogent.)
2. The Rail Average had refused to follow the Industrials into new Major low ground at that time. It had held above its closing level of May 1940. (Also true, but of questionable significance. More about this later.)
3. The Industrials had constructed a Line and gone up out of it. (Again true, but the Line was somewhat short to have, beyond a doubt, major import.)

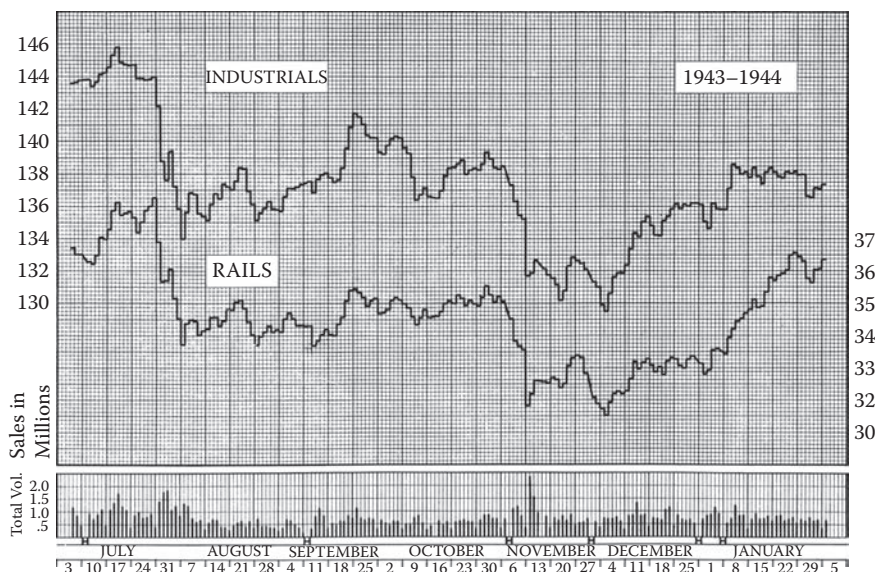


Figure A.5 Daily closing price levels of the Dow–Jones Industrial and Rail Averages from November 2, 1942, to June 30, 1943, and total daily market volume. This chart follows and should be compared with [Figure A.4](#). The decline in the Rail Average during November and early December produced the first test of the Major Trend since the preceding June. When this Index recovered and, on February 1, 1943, closed above its November 2 high, a Primary Bull Market was thereby signaled according to Dow Theory.

4. The Rail Average had produced successively higher Minor Tops and Bottoms for four months. (This also was true but did not permit positive differentiation from a Bear Market Secondary.)

The more conservative Dow theorists were not yet convinced. They maintained this uptrend had yet to undergo the test, bound to occur sooner or later, of an Intermediate Reaction. They admitted that the picture was most encouraging, but they called attention to the fact that, except for Point 1, it was no better than that of November 1940. Let's follow along through the next five months. [Figure A.5](#) shows the daily market action from November 1, 1942, to June 30, 1943.

The Bull signal

After reaching 29.28 at their close on November 2, the Rails declined in almost a straight line for six weeks to 26.03 on December 14. This move indubitably rated as an Intermediate in duration and it had "given up" more than half of that Average's entire advance from the June 2 low point. The Industrial Index, however, held stoutly in another narrow Line throughout November, December, and January. From December 14, the Rails turned up, and finally, on February 1, 1943, closed at 29.55, out above their previous Intermediate Top of 29.28 recorded the previous November. By then, the Industrials had also moved up into new high ground. This development at last satisfied every strictest requirement of Dow Theory; a new Primary Bull Market was in force. Trading volume had also been expanding on each Minor Advance during the fall and winter months, but its evidence was not needed; the price action alone was conclusive. The Rails had produced the necessary sequence of higher Intermediate Tops and Bottoms. In the Industrials, Lines had served the purposes of the theory as substitutes for Intermediate Reactions.

It was necessary now to relabel the up-move from April–June to November of 1942 as the first Primary Swing in a Bull Market. The decline of the Rails from November 2 to December 14 was now recognized as the first Secondary within that Major Trend.

We may turn back for a moment at this point to comment on the performance of the Rail Index in June 1942. Since it held above its low of May 1940, some commentators have maintained the Bull Market should really have been dated from that former year as representing the last "confirmed" lows. This strikes us as rather impractical hair-splitting. Regardless of the 1.17 higher level in the Rail Average in June 1942, a genuine Bull Move did not start until that time. We suspect, before many years have passed, Dow theorists will have occasion greatly to regret the importance that has since been assigned to the Rails' "failure to confirm" in the spring of 1942. Remember, such a Divergence does not and cannot produce a positive signal; at the time of its occurrence, it can serve merely to negate or cast in doubt the implications of the other Average; only subsequent action in the opposite direction can establish the existence of a change in trend. If the Rails' decline in May 1942 had carried them below 22.14, but their subsequent action had followed the course it actually did, point for point at a lower level, a Bull Market Signal would nevertheless have been given at the very same time, not one day later and not one day sooner.

Moreover, a Divergence does not necessarily imply a move of consequence in the opposite direction will ensue. We have already examined one comparable instance (in the spring of 1941) that resulted otherwise. Logically, if a failure to confirm such as occurred in 1942 is to be taken as an indication of a turn in trend, then its opposite, (confirmation or reaffirmation by both Averages) should argue with equal force against a turn in trend. Yet the simple truth is that many more Major Reversals have come when the Averages were in

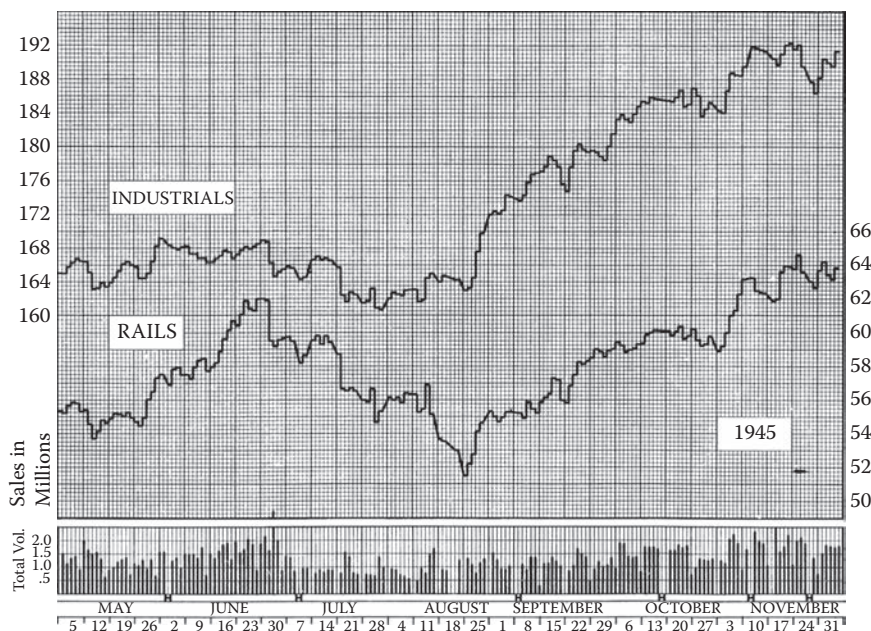


Figure A.6 Daily closing prices of Dow-Jones Industrial and Rail Averages, and total market volume, July 1, 1943, to January 31, 1944.

agreement than when they were divergent. We have no wish to belabor the point or waste the reader's time, but we do feel he should be warned against the wishful thinking that every "failure to confirm" seems to inspire when the market is in a Bear Trend.

To return to our history, the Averages closed at 125.88 and 29.51, respectively, on the day following our conclusive Bull Market Signal in February 1943. Theoretically, that is where an investor who strictly followed the Dow Theory would have bought his stocks. (Those who were satisfied the Primary Trend was up in November 1942 bought with Averages around 114.60 and 29.20.) It was reasonable to assume this Bull Market, which as yet showed few of the usual characteristics of the second phase and none whatever of the third phase, would continue for some time to come. The next four months produced no market developments that required interpretative attention, and we can move on to the events of July. [Figure A.6](#) charts the action from July 1, 1943, to January 31, 1944.

The first correction

After closing at 145.82 on July 14, 1943, the Industrial Average drifted off. The Rails pushed up to a new high (38.30) 10 days later, but the Industrials refused to join in the rally and then both indexes cracked down sharply for seven sessions. Turnover increased and the decline was the greatest occurring in the Bull Market up to that date. However, everyone realized the market, after several months of quite persistent advance, was "entitled to a correction." In neither duration nor extent could this down move be qualified as more than a Minor Trend. Next ensued three months of desultory fluctuation with little net progress in either Average. The Industrials pulled up to 141.75 on September 20 and then drifted off again, whereas the Rails struggled back to 35.53 on October 27. Another quick break developed in early November, culminating in a high-volume shakeout that cut the value

of the Industrials by 3.56 points and the Rails by 1.75 on November 8. Prices rallied a little and sold off again, reaching new lows (since early spring) on November 30—Industrials 129.57 and Rails 31.50.

There was no question now that a full-fledged Secondary Reaction had developed. The problem for Dow interpreters was whether there was more involved. If the first drop in July could be construed as an Intermediate Trend in itself, and the August–October action as another Intermediate Swing, then the November break would signal a Bear Market. As a matter of fact, no Dow theorist, so far as we know, gave very serious consideration to any such interpretation. The July break, as aforesaid, did not rate as an Intermediate in either duration or points retraced; the whole move from July to November 1943 had to be regarded as all-of-a-piece, all one Secondary Reaction. The real Major Trend test would come on the next advance, whenever that should develop; if that failed to top the July peaks, and prices thereafter declined to new lows, a Bear Market would indeed be in effect.

The decision was long deferred. Prices began again to move up, but the advance in the Industrials was slow and grudging. The Rails forged ahead more rapidly and pushed through their July Top on February 17, 1944, going on to a Minor Peak at 40.48 on March 21. The Industrial Average attained 141 on March 13, but still nearly 5 points below its “signal” level, faltered and fell back. Here was another striking case of “failure to confirm.” For those who chose to assign grave significance to such developments, it could have only a very Bearish meaning. All it did mean, in fact, was continuation of the Primary Bull Move had not as yet been confirmed. Only if both Averages now declined and closed below their respective November 30 Bottoms would the new high registered by the Rails alone in February have to be disregarded and a Primary Bear Market announced. In brief, the situation at the end of March was no different, so far as its Major Trend implications were concerned, from what it had been in early January before the Rails pushed through.

Bull Trend reaffirmed

The situation remained in doubt (but subject always to that basic presumption of the Dow Theory that we named as Rule 12 in the preceding chapter [EN10: [Chapter 3](#)]) until June 15, 1944, when the Industrials finally came through to close at 145.86. It had taken them four months to confirm the Rails, almost a full year to reaffirm the Primary Uptrend. The effect of this “signal” on traders was electric; trading volume increased by 650,000 shares on the following day as prices jumped another full point.

The following 12 months need no detailed discussion as they produced nothing in the way of market action to give a Dow theorist any concern. Prices drifted off irregularly for nine weeks after mid-July, but their net loss was of minor proportions, and they then climbed with only brief interruptions to 169.08 in the Industrial Index on May 29, 1945, and 63.06 in the Rail Index on June 26, 1945. We should take a brief look at the period following, not because it illustrates anything new in our study, but because it takes in the surrender of Japan and the end of fighting in World War II.

The seven months from May 1 to November 30, 1945 are covered in [Figure A.7](#). The Industrials held steady for four weeks while the Rails were making the spurt to their June 26 Top. On June 28, with nothing in the newspaper headlines to account for such a radical trend change, prices broke sharply and turnover climbed to nearly 3 million shares, the highest day’s total for the Bull Market up to that time. Nevertheless, the Industrial Average gave ground reluctantly thereafter, and by June 26, at 160.91 had given up less than 5% of its top price. The Rails shook down rapidly, however. The Hiroshima bomb was dropped on August 5, and Japan surrendered on the 14th. The Industrials were now rallying up from

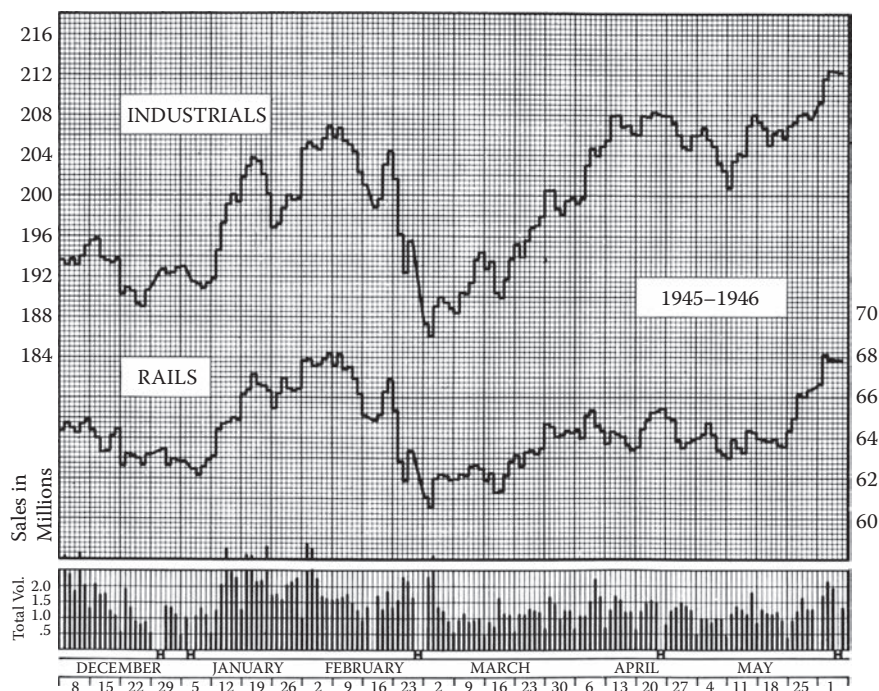


Figure A.7 Daily closing price levels of the Dow-Jones Industrial and Rail Averages from May 1 to November 30, 1945, and total daily market volume. This period, which saw the end of World War II, produced only a moderate Secondary Correction in the Primary Bull Market, which had already run for three years from its beginnings in April/June, 1942.

their July 26 low, but the Rails could not hold and plunged again, hitting bottom finally (for this move) on August 20 at 51.48, for a loss of more than 18% of their June peak value.

The Rails falter

Before we go on with our examination of the market action here, it is interesting to note up to this point the Rail Average had been the “hero” of our story. Starting with its refusal to go down to a new Bear Market low in June of 1942, it was the spearhead of each important advance, had staged the most spectacular rallies, had gained 170% in value as compared with the Industrials’ 82%. In retrospect, the explanation is obvious: the railroads were the chief business beneficiaries of the war. They were rolling up profits, paying off indebtedness, and reducing their fixed charges at a rate unheard of in this generation (and probably never to be seen again). Although the “public’s” eye was on the traditional and better publicized “war industries,” the market began, as far back as Pearl Harbor, to shrewdly appraise and discount this unprecedented harvest for the Rails. But from here on, the picture changes and the Rails become the laggards. As we look back now, it is just as obvious that, with equal shrewdness, the market began in July of 1945 to discount a change in their fortunes. An illuminating demonstration of the basic assumption (Tenet Number 1) in Dow Theory!

Turning back to our chart, prices began to push up again with renewed vigor after August 20. Both Averages had experienced a Secondary Reaction and now Dow theorists had to watch closely to see whether the Primary Uptrend would again be reaffirmed by their going to new highs. The Industrials “made the grade” when they closed at 169.89 on

August 24, but the Rails had much more ground to recover and were running into offerings as they came up in succession to each of the Minor Bottom levels of their June–August downtrend (a phenomenon to which we shall devote some attention later on in the chapter on Support and Resistance). Not until early November 1945 were they able to confirm the signal of the Industrials by closing above 63.06. At this point, the Averages had, once again, announced that the Primary Bull Market was still in force. It had now lasted for three and a half years—longer than most Bull Markets, and “third phase” signs were rapidly appearing. The public was buying, the boardrooms were crowded, stock market news was making the front pages of even small city newspapers, the “cats and dogs” were being whooped up, business was booming.

With both Averages in new high ground and the Bull Market reaffirmed, all previous low points could now be disregarded. For example, the 160.91 Bottom of July 26 in the Industrials and the 51.48 of August 20 in the Rails had no further significance in Dow Theory. This is a point we have not stressed heretofore, but it is important. It might, indeed, be added to our set of rules in the preceding chapter (*EN11: Chapter 3*) were it not implicit in the basic tenets. Once a Primary Trend has been confirmed or reconfirmed, the past is forgotten and everything hinges on future action. At the end of 1945, with “third phase” symptoms rife, the action of the market had to be followed with redoubled vigilance. The third phase could last for two more years (as it did in 1927 to 1929) or be concluded at any moment. Our next chart (*Figure A.8*) carries us through May 1946.

The spring of 1946

The market went through a Minor Setback in late December, a development has come to be expected as the normal pattern for that month and is usually attributed to “tax selling”—and stormed ahead again in January 1946. Daily volume on January 18 exceeded 3 million shares for the first time in more than five years. During the first week of February, prices “churned” with little net change. Extreme high closes were registered during this period by the Rail Average at 68.23 on February 5, and by the Industrial Average at 206.97 on February 2. On February 9, both started to slide off, pulled back sharply from the 13th to the 16th, and then broke in a selling wave that ran to a climax on February 26 with closings at 60.53 and 186.02, respectively. The loss in the Industrials was the greatest in points (20.95) they had suffered during the entire Bull Market; in the Rails, it was exceeded only by their July–August decline of the previous year. It amounted to a little more than 10% in the former and 11% in the latter and gave up a little less than half of their advances from the 1945 summer lows. The decline was three weeks old on February 26. It was an unqualified Intermediate—in Dow Theory a Secondary Reaction presumptively within the still existing Major Uptrend.

Labor troubles were dogging the steel and motor industries in 1946 from early January on, with a coal strike looming. The February break was attributed to those news developments, but the ruling cause was more likely the discontinuance of margin trading. In January, the Federal Reserve Board announced after February 1 stocks could be bought only for full 100% cash. The late January up-fling was featured by the “little fellow” seizing his last chance to buy on margin. (Those who participated in this scramble will doubtless regret it for a long time yet to come.) Professionals seized the opportunity to unload their trading commitments, but the “little fellow” was now temporarily out of funds; his brokerage account was quickly “frozen.” Under the circumstances, as we look back, it is amazing that a more extensive Panic did not then eventuate.

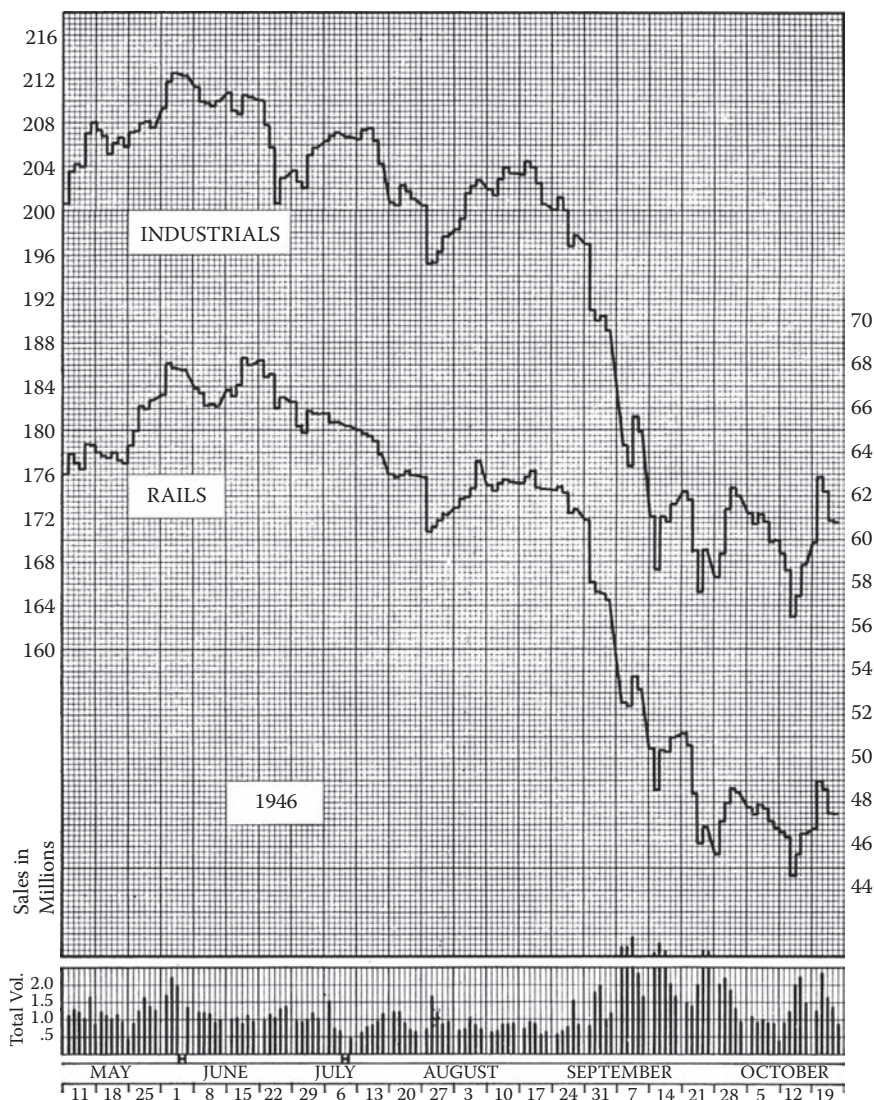


Figure A.8 Daily closing price levels of the Dow-Jones Industrial and Rail Averages from December 1, 1945, to May 31, 1946, and total daily market volume. Noteworthy features of this period included the extremely high volume that prevailed during January and February as compared with lower turnover in April and May, and the laggard performance of the Rails when the Industrial Average pushed up to a new high in April and again at the end of May. At the latter date, the February lows were still the critical downside “signal” levels according to the Dow Theory.

Yet the Dow theorist was not concerned with causes. The Bull Market had been reaffirmed by both Averages in early February, canceling all previous “signal” levels. Bullish Forces were still evidently in effect because the February 26 lows held and prices began to recover. The Industrials came back quickly and by April 9 had closed in new high ground at 208.03. The Rails dragged; when the market showed signs of weakening at the end of April, the Rail Average was still nearly 5 points below its early February high. Was this another “failure to confirm” to worry about?

Final Up-Thrust

The late February Bottoms were now the critical points on the downside; if both Averages should decline below the Intermediate Low closes then recorded, before the Rails could make a new high above 68.23 (in which event the Bullish Signal of the Industrials would be canceled), a Bear Market would thereby be signaled. Despite a miner's strike and an imminent rail workers' strike, the market turned firm again in mid-May and put forth a surprising rally that swept the Industrial Index up to 212.50 on May 29, 1946—a new Bull high by nearly 6 points. The Rails failed in May by only 0.17 to equal their February high close, slid back a trifle, and then pushed through at last on June 13 to close at 68.31, thereby confirming the Industrials in their announcement that (as of that date) the Primary Trend was still up. The February lows (186.02 and 60.53) now ceased to signify in Dow Theory, but keep those figures in mind because they are involved in an argument that raged among Dow students for months thereafter.

The preceding picture is overlapped by [Figure A.9](#), taking up the market's action on May 4 and carrying it forward to October 19, 1946. Trading volume, it may be noted, in late May and early June did not come up to the levels of either the late January to early February Top or the late February Bottom; the market appeared to be losing vitality, an ominous, although by no means, decisive manifestation. Prices began to fall off rapidly immediately after the Rail Confirmation on June 13. The Industrials rallied for two weeks in early July, but the Rails continued to decline; the Industrials broke again on July 15 and the two Averages continued their slide until they stood at 195.22 and 60.41 at the close on July 23.

There, as it subsequently developed, was the end of that particular Intermediate Swing—one in accord with our Rule 12 had to be labeled a Secondary Reaction in a Bull Market until proved otherwise. The market swung up again. It climbed slowly and steadily, but with turnover running well under a million shares, until exactly three weeks later, the Industrials at 204.52 (August 13) had regained a little more than half of their June–July loss and the Rails at 63.12 (August 14) a little more than a third of theirs. This advance, therefore, had met the minimum requirements of an Intermediate Trend. If prices could continue to rise and eventually push through their May–June Tops, the Major Bull Trend once again would be reaffirmed. Although, if they should turn down and fall below the July 23 closing levels, it would signal a Reversal of the Primary Trend.

The Bear Market signal

The situation was critical, as evident in the volume chart. Ever since the end of May, turnover had tended not only to increase on the declines, but also, and more importantly, dried up on the rallies. Compare [Figure A.9](#) with [Figures A.7](#) and [A.8](#), and you can see how conspicuous this phenomenon had become by mid-August. Prices did turn down, with activity increasing on the breaks, and on August 27, the closing prices, 191.04 for the Industrials and 58.04 for the Rails, told a sad story. The Averages had spoken: a four-year Bull Market had ended, and a Bear Market was under way. A Dow investor should have sold all his stocks on the following day (at approximately 190 and 58 in terms of the two Averages).

To clear the record, it was necessary for the Dow theorist now to go back and mark the May 29 and June 13 highs in the Industrials and Rails, respectively, as the end of the Bull Market. The June–July decline then became the first Primary Swing in the new Bear Trend, and the July 23 to August 14 advance became the first Secondary Recovery within the Major Downtrend. A second Primary Swing was now in the process of development.

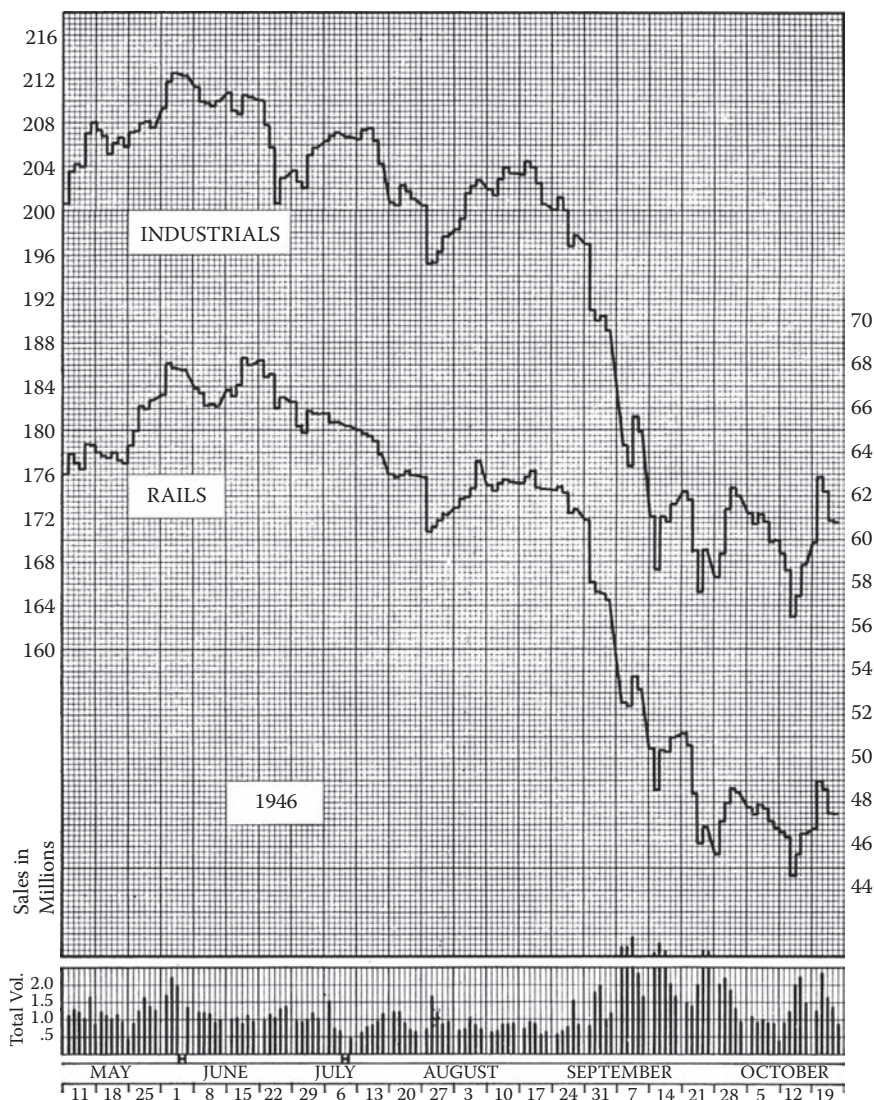


Figure A.9 Daily closing price levels of the Dow-Jones Industrial and Rail Averages from May 4 to October 19, 1946, and total daily market volume. This chart overlaps [Figure A.8](#). Compare the closing price of the Rail Average on June 13 with its February 5 high close. This June action nullified the previous Dow Theory importance of the February lows. Note significant change in volume pattern after May, especially during the August rally.

You will have noted in the foregoing, a Bear Market was signaled as soon as both Averages penetrated their July 23 lows. Let us return now and take up that argument we mentioned on the preceding page. Some students of Dow Theory refused to recognize the new high of June 13 in the Rail Average as a decisive reaffirmation of the Bull Trend. The previous close should be bettered by at least a full point (1.00), many argued, to confirm the signal previously given by the Industrials; the margin of only 0.08 was inconclusive. Nevertheless, this opinion, if accepted, had logical consequences that later proved

embarrassing. For, if the Bull Market had not been reaffirmed in June, then the critical levels on the downside remained at 186.02 in the Industrials and 60.53 in the Rails, the February 26 Bottoms. Therefore, a Bear Market could not be "called" until those prices had been penetrated downside by both Averages. This view acquired a large following, especially among those who were not interested in "hair splitting" theory but wanted "to give the market every chance in view of the still improving fundamentals."

The market did, of course, proceed to break its February lows, and by that time, the Panic (second phase) was on. Obviously, in this case, the orthodox "any-penetration-whatever" school had all the best of it; they had sold out at least 13 points higher up in terms of the Industrial Index (at least 6 in the Rails). Six weeks later, on October 9, 1946, this second Primary Intermediate Swing ended at Industrials 163.12, Rails 44.69, and another Intermediate Recovery Move started.

Before closing this history of six years of Dow Theory interpretation, we might note the June 13 high in the Rail Average furnished a perfect illustration of the rule stating a trend can change any time after it has been confirmed or reaffirmed, also of the diminishing odds in favor of continuance with each successive reaffirmation of the Primary Trend.



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Appendix B: Resources

- Section 1: Important and indispensable sites
- Section 2: References for further study
- Section 3: Investment-oriented sites
- Section 4: The Sharpe Ratio
- Section 5: Calculating volatility and examples of professional risk analysis
- Section 6: The essence of fundamental analysis
- Section 7: Software packages and Internet technical analysis sites
- Section 8: The Leverage Space Portfolio Model of Ralph Vince

Section 1: Important and indispensable sites

Contact information for John Magee:

John Magee technical analysis::Delphic options research ltd (jmta::dor)

E-mail	bassetti@edwards-magee.com bassetti@att.net
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Edwards-Magee website	http://www.edwards-magee.com
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SEC Enforcement	http://www.enforcement@sec.gov
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(Whenever I receive touts or investment spam, I immediately forward it to this important branch of the SEC. All responsible investors should do the same.)

Volatilities and options:	http://www.optionstrategist.com
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Portfolio hedge computation	http://www.cboe.com/portfoliohedge
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	http://www.cboe.com
--	---

	http://www.abg-analytics.com
--	---

Software reviews and information	http://www.traders.com
----------------------------------	---

Software demonstrations and packages	http://www.omegaresearch.com
--------------------------------------	---

	http://www.comstar.com http://www.aiqsystems.com
--	---

	http://www.tradestation.com http://www.equis.com
--	---

Web chart analysis site	http://www.stockcharts.com
-------------------------	---

Morningstar	http://www.morningstar.net
-------------	---

Industry evaluations	http://www.gomez.com
----------------------	---

Mutual fund cost calculator	http://www.sec.gov/mfcc-int.htm
-----------------------------	---

Internet analysis	http://www.stockcharts.com
-------------------	---

Section 2: References for further study

On Volatilities and Options:	http://www.optionstrategist.com
(and futures)	http://www.cboe.com
DOW futures and options	http://www.cbot.com
AMEX iShares (DIA, QQQ, etc.)	http://www.amex.com
On betas	http://www.finance.yahoo.com

On risk

Value at Risk, Phillippe Jorion, New York: John Wiley & Sons, 1996

Against the Gods, Peter Bernstein, New York: John Wiley & Sons, 1996

Risk Management 101 (software), Zoologic, Inc., 1997.

See also [Chapter 42](#)

On candlesticks

Japanese Candlestick Charting Techniques, Steve Nison, New York: NYIF, 1991

Beyond Candlesticks, Steve Nison, New York: John Wiley & Sons, 1994

On futures

Schwager on Futures, Technical Analysis, Jack Schwager, New York: John Wiley & Sons, 1996
(and other titles by Schwager in References).

On portfolio management

The Journal of Portfolio Management

Risk Management 101 (software), Zoologic, Inc., 1997

[Chapter 42](#)

Section 5, this appendix

Section 8, this appendix

Section 3: Investment-oriented sites

AARP Investment Program	http://www.aarp.scudder.com
Accutrade	http://www.accutrade.com
ADR.com	http://www.adr.com
American Association of Individual Investors	http://www.aaii.com
American Century	http://www.americancentury.com
American Express Financial Services	<a href="http://www.americanexpress.com/direct<sup>a</sup>">http://www.americanexpress.com/direct^a
American Stock Exchange	http://www.amex.com
Ameritrade (has little-advertised free trade site)	http://www.tdameritrade.com
Annual Report Gallery	http://www.reportgallery.com
Barron's	http://www.barrons.com
BigCharts	http://www.bigcharts.com
Bloomberg Financial	http://www.bloomberg.com
Bonds Online	http://www.bondsonline.com

Briefing.com	http://www.briefing.com
Brill's Mutual Funds Interactive	http://www.fundsinteractive.com
Business Week	http://www.businessweek.com
CBS MarketWatch	http://www.marketwatch.com
Chicago Board of Options Exchange	http://www.cboe.com
CNNFN	http://www.cnnfn.com
DailyStocks	http://www.dailystocks.com
Excite	http://www.excite.com
Federal Deposit Insurance Corporation	http://www.fdic.gov
Federal Trade Commission	http://www.ftc.gov
Fidelity Investments	http://www.fidelity.com
Financial Times	http://www.ft.com
Forrester Research	http://www.forrester.com
FundFocus	http://www.fundfocus.com
Fund Spot	http://www.fundspot.com
Gomez Advisers	http://www.gomez.com
H&R Block	http://www.hrblock.com
Hoover's StockScreener	http://www.stockscreener.com
IPO Central	http://www.ipocentral.com
Lombard	http://www.lombard.com
Marketplayer	http://www.marketplayer.com
Market Technician's Association	http://www.mta.org
Microsoft MoneyCentral	http://www.moneycentral.com
Morningstar	http://www.morningstar.net
National Association of Securities Dealers	http://www.nasd.com
National Discount Brokers	http://www.ndb.com
Net Investor	http://www.netinvestor.com
New York Stock Exchange	http://www.nyse.com
Online Investor	http://www.onlineinvestor.com
Philadelphia Stock Exchange	http://www.phlx.com
Quick & Reilly	http://www.quickwaynet.com
Quicken	http://www.quicken.com
Quicken Financial Network	http://www.qfn.com
Realty Stocks	http://www.realtystocks.com
Reuters	http://www.reuters.com
Schwab, Charles	http://www.schwab.com
Securities and Exchange Commission	http://www.sec.gov
Securities and Exchange Commission Enforcement	http://enforcement@sec.gov
Securities Industry Association	http://www.sia.com
Securities Investor Protection Corporation	http://www.sipc.org
SmartMoney	http://www.smartmoney.com
Social Security Online	http://www.ssa.gov
Standard & Poor's Fund Analyst	http://www.micropal.com
Standard & Poor's Ratings Services	http://www.ratingsdirect.com
Stock Guide	http://www.stockguide.com
Stockpoint	http://www.stockpoint.com
Suretrade	http://www.suretrade.com

1040.com	http://www.1040.com
The Motley Fool	http://www.fool.com
TheStreet.com	http://www.thestreet.com
Technical Securities Analysis Association of San Francisco	http://www.tsaasf.org
T. Rowe Price	http://www.troweprice.com
Treasury Direct	http://www.publicdebt.treas.gov
Vanguard Brokerage Services	http://www.vanguard.com
Wall Street Access	http://www.wsaccess.com
Wall Street Journal Interactive Ed	http://www.wsj.com
Yahoo! Finance	http://www.finance.yahoo.com
Zacks Investment Research	http://www.zacks.com
ZD Interactive Investor	http://www.zdii.com

^a American Express now advertises free trades for some accounts.

Brokerage houses

Waterhouse Securities	http://www.tdameritrade.com 800-934-4134
A. B. Watley	http://www.abwatley.com 888-229-2853
Web Street Securities	http://www.webstreetsecurities.com 800-932-0438
Jack White	http://www.jackwhiteco.com 800-753-1700
WitCapital	http://www.witcapital.com 888-494-8227
Net Investor	http://www.netinvestor.com 800-638-4250
Quick & Reilly	http://www.quickwaynet.com 800-672-7220
Charles Schwab	http://www.schwab.com 800-435-4000
Suretrade	http://www.suretrade.com 401-642-6900
Vanguard Brokerage Services	http://www.vanguard.com 800-992-8327
Wall Street Access	http://www.wsaccess.com 888-925-5782
Empire Financial Group, Inc.	http://www.lowfees.com 800-900-8101
E*TRADE	http://www.etrade.com 800-786-2575
Lombard	http://www.lombard.com
National Discount Brokers	http://www.ndb.com 800-888-3999

Accutrade	http://www.accutrade.com 800-494-8939
Ameritrade	http://www.tdameritrade.com 800-326-7507
See also	http://www.freetrade.com
Discover Brokerage	http://www.discoverbrokerage.com 800-688-3462
DLJ Direct	http://www.dljdirect.com 800-825-5723
Datek Online	http://www.datek.com
DLJ Direct	http://www.dljdirect.com
Dow Jones Markets	http://www.djmarkets.com
DRIP Central	http://www.dripcentral.com
Empire Financial Group	http://www.lowfees.com

Section 4: The Sharpe Ratio

Although this formula is flawed, it will not hinder the reader to know about it and understand it. Believing in it would be quite a different matter, however. The Sharpe Ratio itself is as follows:

$$SR = (E - I)/sd$$

where

E is the expected return,

I is the risk-free interest rate,

sd is the standard deviation of returns.

The effect of this inflexible formula is to stick the trader with a measuring tool of little use to the practical trader. It assumes volatility of returns as measured by sd equals risk (the common academic problem). In the inflexibility of the sd calculation, it fails to measure the most important fact in trading, the maximum drawdown, or, the inevitable fluctuations in gains and losses. Specifically, the greatest expected or experienced loss, the retracement from greatest high to greatest low, and the sequences of these experiences.

Section 5: Calculating volatility

To calculate the volatility of a portfolio or of an individual instrument, first find the difference between each return and the average. Then square each difference and add them together. Divide the sum by the number of returns minus one. This result is known as the variance. Finally, take the square root of the variance to get the volatility. Combining these steps into a formula (see [Diagram B.1](#)):

Step 1: Calculate the average return.

Step 2: Calculate the deviation of each return.

Step 3: Square each period's deviation.

Step 4: Add them together.

Step 5: Divide the sum by the number of periods minus 1.

Step 6: Take the square root.

$$\sigma = \sqrt{\frac{\sum_{i=1}^n (R_i - \mu)^2}{n - 1}}$$

Diagram B.1 Volatility formula. Illustrated is the formula for computing volatility. (1) Calculate the average return; (2) calculate the deviation of each return; (3) square each period's deviation; (4) add them together; (5) divide the sum by the number of periods minus 1 to get the variance; and (6) take the square root.

Note this is the formula to use when you have experience with the portfolio. There is quite a more complex procedure in Modern Portfolio Theory.

Section 6: The essence of fundamental analysis

From the *John Magee Market Letters*, December 15, 1984

by Richard McDermott

The Elliott Wave Theory: perspective and comments

We had the pleasure of attending the December meeting of the Market Technicians Association of New York.

Long-term subscribers will remember the MTANY as the organization that honored John Magee with its "Man of the Year" award in 1978. The speaker was Robert Prechter, publisher of "The Elliott Wave Theorist," an investment advisory which bases its forecasts on interpretations of R. N. Elliott's work on the stock market.

Of primary interest to SAS subscribers are Prechter's comments on technical analysis itself. The Elliott Wave Theory, it must be remembered, is really no more than a "catalog" of stock market price movements, laid one on top of the other, so to speak, until a grand, underlying, and enduring pattern is observed; in short, pure *technical* analysis. Among Prechter's definitions and observations regarding fundamental analysis are the following:

1. "First let's define 'technical' versus 'fundamental' data ... technical data is that which is generated by the action of the market under study."
2. "The main problem with fundamental analysis is that its indicators are removed from the market itself. The analyst assumes causality between external events and market movements, a concept which is almost certainly false. But, just as important, and less recognized, is that fundamental analysis almost always requires a *forecast of the fundamental data itself* before conclusions about the market are drawn. The analyst is then forced to take a second step in coming to a conclusion about how those forecasted events will affect the markets! Technicians only have one step to take, which gives them an edge right off the bat. Their main advantage is that they don't have to forecast their indicators."
3. "What's worse, even the fundamentalists' second step is probably a process built on quicksand.... The most common application of fundamental analysis is estimating companies' earnings for both the current year and next year and recommending stocks on that basis.... And the record on that basis alone is very poor, as Barron's pointed out in a June 4 article, which showed that earnings estimates averaged 18% error in the thirty DJIA stocks for any year already completed and 54% error for the year ahead. The weakest link, however, is the assumption that correct earnings estimates are a

basis for choosing stock market winners. According to a table in the same Barron's article, a purchase of the ten DJIA stocks with the best earnings estimates would have produced a ten-year cumulative gain of 40.5%, while choosing the ten DJIA with the worst earnings estimates would have produced a whopping 142.5% gain."

We enjoyed Prechter's polished exposition of a technical approach, which differed from our own. As for his observations about fundamental analysis, we simply could not agree more.

Key: portfolio risk report. The Portfolio Risk Analysis screen summarizes delta, profit, and several measures of risk for a portfolio of user-specified stocks and options.

The screen displays:

STOCK SYM = The stock symbol;

STOCK POS = The stock position, or number of shares owned;

DELTAS TOTAL = The sum of the stock deltas and option deltas;

BETA = The stock beta for each stock (implementation pending);

\$BETA = \$The dollar risk due to movement of the general market: $\$Beta = (Delta \times Stock Price) \times Beta$;

\$DELT = An annualized risk figure based on Position imbalance: $\$Delta = (Total Delta \times Stock Price) \times Volatility$;

Portfolio Analysis Screens

Diagrams B.2 and B.3 deal with portfolio risk and profit analysis. Illustrated are the sophisticated quantitative portfolio Profit and Risk reports of Delphic Options Research as implemented for Standard & Poor's trading systems and Prudential Securities to give the reader an appreciation of the depth and complexity of professional thinking about risk and portfolio analysis. The originals of these reports were designed by Blair Hull and Lester Loops for their own use in market making.

PORTFOLIO RISK ANALYSIS (.30 Filename)

OMS+		.30 PORTFOLIO RISK ANALYSIS							3/24/87	10:55:28	
--STOCK--		----DELTAS----									
SYM	POS	OPTION	TOTAL	PROFIT	BETA	\$BETA	\$DELTA	\$GAMMA	\$THETA	\$RISK	%RISK
FDX	2800	-3063	-263	16,734	1.60	-32,081	-7017	158,136	-121	18,075	7.3
GE	3200	-3089	110	12,632	.95	11,374	2993	120,104	-16	13,000	5.3
HWP	-6200	5682	-517	8270	1.20	-45,959	-13,404	-522,208	734	56,617	22.9
LIT	-6700	0	-6700	0	1.40	-56,9834	-122,107	0	0	122,107	49.3
NSM	3600	-4080	-480	10,411	1.45	-21,076	-7267	150,464	-169	17,436	7.0
XRX	-3600	3991	391	-882	1.05	18,132	4835	186,506	-260	20,232	8.2
.						.					.
.						.					.
.						.					.
*TOT	-6900	-559	-7459	47,165		-63,9444	-141,969	93,000	166	24,7470	100.0
AVERAGE VOLATILITY:					.338						
EQUIVALENT MARKET EQUITY:					-419613.40						
PORTFOLIO PROFIT RATIO:					.191						
PORTFOLIO PROFIT GAMMA RATIO:					4.815						

Diagram B.2 Risk analysis.

\$GAM = An annualized risk figure based on curvature of the position. A positive \$Gamma indicates a backspread, and a negative \$Gamma indicates a vertical position:

\$Gamma = Total

Gamma \times (Stock Price \times Volatility);

\$THETA = Theoretical dollar amount a position will gain or lose in one day if the stock price remains unchanged;

\$RISK = The annualized standard deviation of the position based upon a composite of \$Delta and \$Gamma;

%RISK = Percent of portfolio risk in each position;

TOT = Totals for each of the above categories;

AVERAGE VOLATILITY = Average volatility for the stocks;

EQUIVALENT MARKET EQUITY = Sum of each of the stock prices multiplied by their total deltas; PORTFOLIO PROFIT RATIO = Total portfolio profit divided by the total portfolio risk; PORTFOLIO PROFIT GAMMA RATIO = Total portfolio profit divided by the portfolio \$Gamma squared.

Key: portfolio profit report. The Portfolio Profit Analysis screen summarizes delta, profit, and several measures of profit for a portfolio of user-specified stocks and options.

The screen displays:

STOCK SYM = The stock symbol;

STOCK POS = Stock position, or number of shares owned;

DELTAS OPTION = Total delta of the option position;

DELTAS TOTAL = Sum of the stock deltas and option deltas;

M TO M = Mark to market: Total value of stock and options positions based upon market prices;

PROFIT TOTAL = Total theoretical profit for each position;

PROFIT/DAY = Theoretical profit divided by the number of days to expiration;

PROFIT/RISK = Ratio of theoretical profit to risk;

PROFIT/DY/RISK = Ratio of theoretical profit per day to risk;

PORTFOLIO PROFIT ANALYSIS (.31 Filename)											
OMS+.31 PORTFOLIO PROFIT ANALYSIS									3/24/87	10:55:28	
--STOCK--		---DELTAS---			-----PROFIT-----				\$	\$	%
SYM	POS	OPTION	TOTAL	M TO M	TOTAL	/DAY	/RISK	/DY/RISK	THETA	RISK	RISK
FDX	2800	-3063	-263	42,3162	16,734	213	.93	4.31	-121	18,075	7.3
GE	3200	-3089	110	704,006	12,632	107	.97	3.01	.16	13,000	5.3
HWP	-6200	5682	-517	53,787	8270	150	.15	.97	734	56,617	22.9
LIT	-6700	0	-6700	-407,025	0	0	.00	.00	0	122,107	49.3
NSM	3600	-4080	-480	157,293	10,411	105	.60	2.21	-169	17436	7.0
XRX	-3600	3991	391	-4431	-882	-18	-.04	-.34	-260	20,232	8.2
.				.							.
.				.							.
.				.							.
*TOT	-6900	-559	-7459	926,792	47,165	557	.19	.00	166	247,470	100.0
AVERAGE VOLATILITY:				.338							
EQUIVALENT MARKET EQUITY:				-419613.40							
PORTFOLIO PROFIT RATIO:				.191							
PORTFOLIO PROFIT GAMMA RATIO:				4.815							

Diagram B.3 Profit analysis.

\$THETA = Theoretical dollar amount a position will gain or lose in one day if the stock price remains unchanged;
 \$RISK = The annualized standard deviation of the position based upon a composite of \$Delta and \$Gamma;
 %RISK = Percent of portfolio risk in each position;
 TOT = Totals for each of the above categories;
 AVERAGE VOLATILITY = Average volatility for the stocks;
 EQUIVALENT MARKET EQUITY = Sum of each of the stock prices multiplied by their total deltas;
 PORTFOLIO PROFIT RATIO = Total portfolio profit divided by the total portfolio risk;
 PORTFOLIO PROFIT GAMMA RATIO = Total portfolio profit divided by the portfolio \$Gamma squared.

Section 7: Software packages and internet technical analysis sites

The first cavemen, fighting over resources, used teeth and claws. The nature of warfare was changed forever when one of the smarter ones picked up a tree branch. Then another smart one discovered the principle of artillery and picked up a rock. Naïve and arrogant traders laughed at Wyckoff's charts. Market makers on the Pacific Coast Options Exchange sniggered at Blair Hull when he started appearing on the floor with printouts. In the days of the wooden racquet, squash players hated the *arrivistes* who appeared with metal and then composite racquets.

No longer—the last to adopt the new weapons is a dead man. Charts showed their power and so did Hull's wonky printouts made with the Black Scholes Model. The losers figured out pretty quickly they needed new weapons. With that dissertation on the epistemology of warfare, I present some of my favorite weapons in the following software and internet sites. No attempt whatsoever is made to be comprehensive or encyclopedic. On the contrary, idiosyncrasy is my operating method and no disfavor is implied to those not included here.

For myself, three desktop software packages are powerful and sufficient for all the needs of a technical analyst: AIQ Trading Expert Pro (<http://www.aiqsystems.com>), Metastock 9.0 (<http://www.equis.com>), and TradeStation 2000i and later versions (<http://www.tradestation.com>). The reader will find examples of charts sprinkled throughout this book, supplementing the beautiful hand-drawn charts of Magee. All these packages have the basic requirements necessary for technical chart analysis, basic charting on readily available data and portfolio. I have said before that all the chart analyst really needs is the ability to draw lines on a chart ... and then perhaps to see the chart as a line chart, or a candlestick chart or ... and so on and so on. The analyst is soon seduced by the dazzling features, *and* the analysis is enriched and made more powerful. Even if one says (as I do), when he looks at an oversold tool, "What do I need that for? I saw it on the bar chart." The analyst finds himself wanting to know more about %R. If it worked for Larry Williams, there must be something in it.

AIQ: TRADING EXPERT PRO

AIQ's package includes an on-screen control panel and scrolling indicator boxes that are color-coded, and this information is synthesized in an indicator barometer. Data management is smooth and easy, and the user may use a system module to create and test his own trading ideas. A panoply of reports is available to aid the investor. For the trader,

real-time alerts are a feature. A portfolio manager module aids the investor in managing not just the portfolio, but also his positions by making stop management facile. An Expert Guru lurks behind the curtain to aid the user in analyzing situations.

METASTOCK 9.0

Metastock 9.0 boasts an impressive array of tools and indicators. “System Experts” pop up on demand and can also guide the user through systems tests and explorations. The Experts can also suggest buys and sells. A point and figure toolbox is a valuable feature. The ability to create and test trading systems, with exhaustive and critical data analysis, is a powerful tool. Metastock adapts easily to add-ons, of which Slauson’s Powerstrike (the quantitative tool for finding critical Support–Resistance zones) is a good example.

Tradestation 2000i and Tradestation 8

Tradestation 2000i is the standalone version of Tradestation 8. Tradestation 8 is a real-time online package that allows for trading through the Tradestation brokerage affiliate. The package is so powerful that online professional and semiprofessional users probably benefit by combining their software arrangement with a brokerage arrangement. 2000i requires the user to maintain his local database, whereas Tradestation 8 always has the data on demand. For the creatively lazy (among them the editor) this is an attractive feature. Systems building and testing has always been and remains a powerful feature of Tradestation. With “EasyLanguage,” the user may specify virtually any system and then chat about it with the Tradestation community of traders. This community has contributed to a large database of trading systems and ideas.

The Internet: prophet (<http://www.thinkorswim.com>)

For the even lazier and more casual investor, there is <http://www.prophet.net> (now at thinkorswim.com), an internet technical analysis site whose free features will fulfill the needs of the general charting investor. With powerful interactive charts and portfolio reporting, the penurious investor will save many pennies at <http://www.prophet.net>. As Mark Twain said, a penny saved is a penny earned. Actually, what did Ben Franklin mean by a penny saved is capital when put to work? A user community and sharing are other attractions. And no local data maintenance is necessary. Among its most valuable features, <http://www.prophet.net> occasionally distributes market commentary and analysis by this editor. All in all, <http://www.prophet.net> appears to deserve the continuing awards it has received from Barron’s and Forbes, as well as *Technical Analysis* magazine. Prophet charting is now available to customers of <http://www.tdameritrade.com>.

The Internet: <http://www.stockcharts.com>

Of similar quality, and similarly honored by Forbes and *Technical Analysis* magazine, <http://www.stockcharts.com> has an additional valuable feature: point and figure (P&F) charting. I have not remarked on P&F charting here, but it is an important technical method, especially for the patient investor. All the other features are available at <http://www.stockcharts.com>, including candlesticks, bar charts, and others. Also, the distinguished analyst John Murphy makes his electronic home there. There is also a “Voyeur” feature that allows the user to see what other traders are doing.

A brief summary

Knowledge is power. Knowing where to find knowledge is even more powerful. The inquiring investor can keep himself up to date on these sites through the yearly evaluations in Barron's and Forbes, and the financial press regularly updates its evaluations of Internet resources.

Section 8: The Leverage Space Portfolio Model

No less than John Bollinger called Ralph Vince's *Handbook of Portfolio Mathematics*, the most important work on the subject. Mr. Vince has done the readers of this book, and me, the very great favor of describing his work in a short article I present here verbatim.

In 1884, Charles H. Dow began his compilation of what would become known as the Dow Jones Indexes. Theories pertaining to non-confirmation of these indices, known as "Dow Theory," would become the cornerstone of modern Technical Analysis.

It is fitting then, with Dow Jones Indexes having embraced the concepts expressed herein with the commercial offerings of The Dow Jones LSP indexes in 2011, this explanation of Optimal f and the resultant Leverage Space Portfolio Model be included in this *the* foundational text on modern Technical Analysis.

Let us consider a case of a simple trade with two possible outcomes. In one of the outcomes, we win 2 units, and in the alternative outcome, we lose 1 unit. We can construct a spectrum ranging between a value 0, where we risk nothing, and 1, where we risk our entire equity. We will consider this value between 0 and 1 as the fraction (f) of our stake at risk, and we will refer to this interchangeably as our *leverage*. Thus, on any given trade or over any given period, we are risking some fraction of our stake, and thus for any given trade or over any given period, we have a value, f , assigned to us whether we are aware of it or not.

If we consider over this hypothetical, simplistic 2-outcome, 2–1 trading situation (similar to if it were the two outcomes of a coin toss) we could plot what we would expect to make on our trading equity (expressed as a multiple of our initial equity) over one play at various values for f as depicted in [Diagram B.4](#).

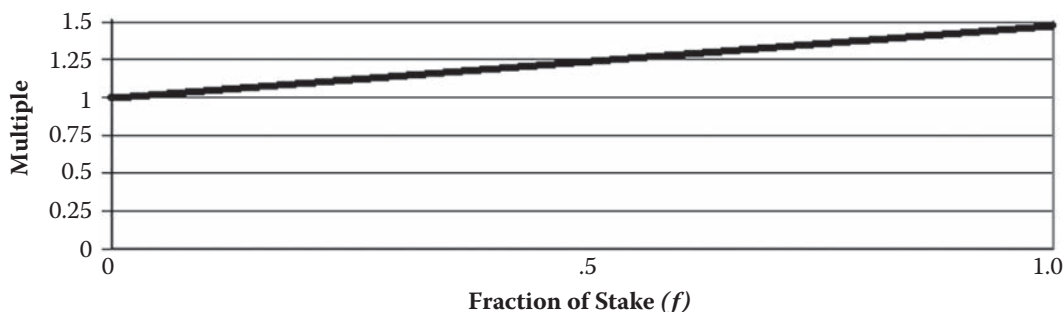


Diagram B.4 Expected Multiple of Starting Stake in a Single 2:1 Coin Toss.

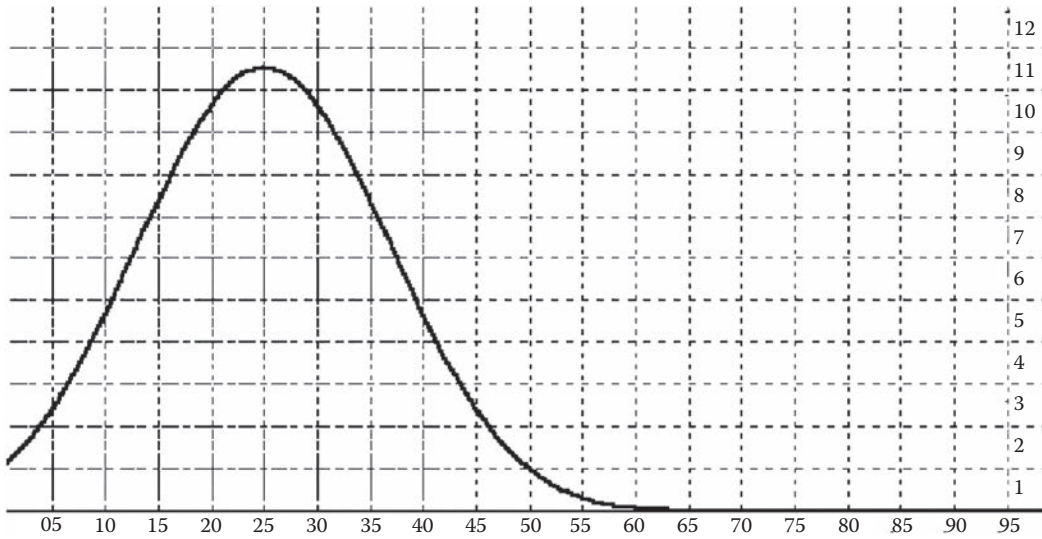


Diagram B.5 Expected Multiple of Starting Stake after Forty Tosses in a 2:1 Coin Toss.

When there is more than 1 trade or period and what we have left to invest in the immediate play or period is a function of what we have made or lost up to this period, the straight line becomes curved, and the peak of the curve settles into a fixed point, migrating in from 1.0 off to the right where a positive expectation trade or period is growth-maximized over 1 trade or period. Thus, after many trades or periods, it settles in to a given location, and for the simplistic case of a coin toss that pays 2–1, that peak will settle in at .25 as depicted in [Diagram B.5](#).

The height of the curve for any given value for f is given by the formula for Optimal f , determined as:

$$\text{multiple} = \left(\left(1 + f * \frac{t_1}{|W|} \right)^{(p)} * \dots * \left(1 + f * \frac{t_n}{|W|} \right)^{(p_n)} \right)^{\text{number_of_expected_plays_or_trades}}$$

Thus, for n trades or periods, for a given value of f , we can determine the multiple made on our stake with simply the outcome of each trade or period (t), probability of that outcome (p), and the worst-case outcome (w), the lowest of all the values for t . We raise the resultant product to the power of however many plays we want to determine our expected growth, obtaining the multiple on our initial tradable equity at that many trades or periods.

This represents what you would expect to make as a multiple on your starting stake for risking a given fraction, f , of your stake.

Notice this is not the same as what is known as The Kelly Criterion, which gives a peak as a “leverage factor,” a value between 0 and infinity representing how much to lever up one’s account, rather than

a fraction (a value between 0 and 1) of an account to risk as expressed by the Optimal f formula. Under certain conditions the two will give an equivalent value for the peak, *for example*, the leverage factor will equal the optimal fraction to risk, as in the 2:1 coin toss example herein, but often not, and it can be a perilous mistake to assume that the answer given by The Kelly Criterion is an optimal fraction of account equity to risk to be expected growth optimal. The Kelly Criterion never yields a peak whose value is the expected growth optimal fraction of an account to risk, but rather always yields the expected growth optimal leverage factor. The two can be translated between one another, but the real benefit of the Optimal f formula is it gives us the height to this curve, expressed as an expected multiple made (or lost) on our initial equity (which is not provided by the Kelly Criterion), from which we can derive a field of study.

For example, there is a point left of the peak where the curve goes from concave up to concave down. Given the vertical axis is the expected growth multiple and the horizontal axis is the risk, we can state this point of inflection represents that point where marginal increase in growth is occurring faster than marginal increases in risk, and this flips at the point of inflection.

Consider the height of the curve at both $f = .1$ and $f = .4$ as equivalent yet the latter is risking four times as much! Clearly, there is never any reason to be beyond the peak of the curve to the right.

We have spoken that you are on this curve, somewhere, whenever you have a position in the markets, whether you acknowledge this or not. Note the point in Figure 2 where $f = .5$, where the multiple = 1.0. To risk any more than this is to see a multiple less than 1.0, and therefore the more one continues to trade at this level, multiplying his initial equity by a number less than 1, the more one insures he will go broke.

Most importantly, this is a situation created without borrowing anything at all—it occurs in a cash account! This is a situation created wherein one would have on one unit risked for every 2 units in equity, a situation that clearly requires no borrowing whatsoever, and yet, to continue at that level of “leverage” under these (very favorable) conditions, one will go broke with certainty as he continues to trade.

When more than one trade or play occurs simultaneously in various markets or approaches, the curve displayed in Figure 2 (which is a curve in 2D space since we are looking at one component), manifests in $N + 1$ dimensional space for N components traded simultaneously. If we consider a case of trading two of these issues simultaneously, of wagering on two 2:1 coin toss games simultaneously, we find ourselves in an $N + 1$ dimensional manifold (in this case, $2 + 1 = 3$ dimensional manifold) space as depicted in [Diagram B.6](#).

This $N + 1$ dimensional space is referred to as “Leverage Space,” and portfolios derived therefrom as “Leverage Space Portfolios” (“LSP” portfolios). LSP-style portfolio construction grants us insights unavailable by more conventional portfolio constructs. For example, in Figure 3, we find the peak of the curve at the f coordinates for both

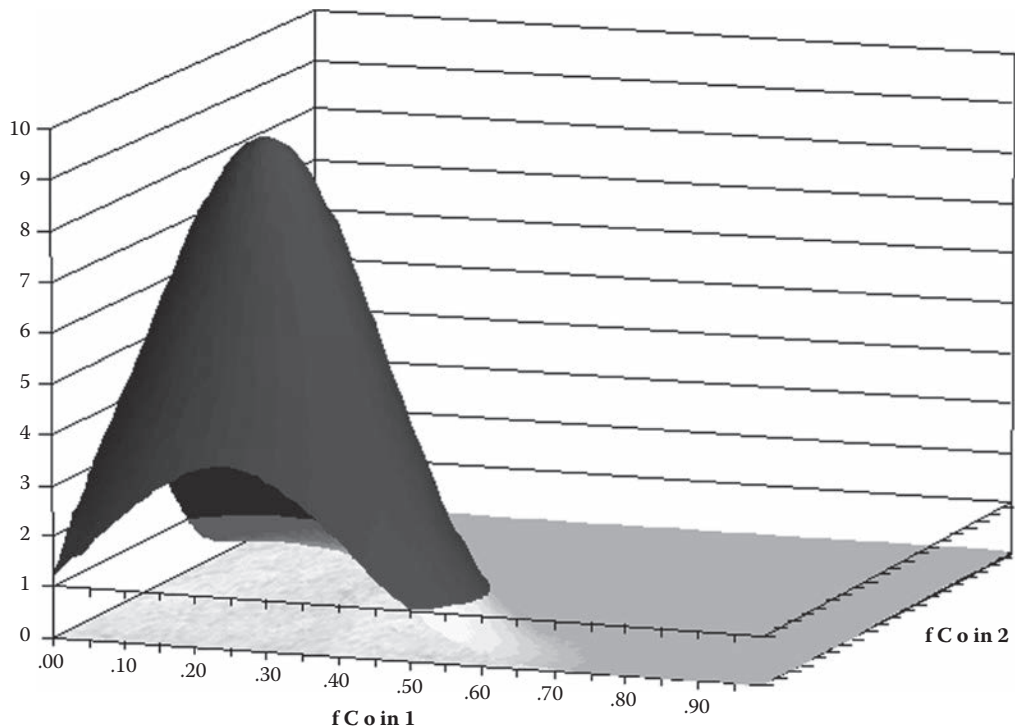


Diagram B.6 Expected Multiple of Starting Stake after Twenty Tosses in Two Simultaneously Played 2:1 Coin Toss Games.

games at .23, .23. Yet, notice what happens if we are off on only one axis; we can be at, say .23, .6, and we find our multiple, the height of the graph at these coordinates, to be less than 1. Thus, even though we are off on only one component in the portfolio (and still not borrowing money to assume any positions) we insure we will go broke as we continue to trade. The notion of diversification as one of meliorating risk is clearly challenged in an LSP-style portfolio, and this is not at all evident by more traditional perspectives on portfolio construction.

Not only are we ineluctably in leverage space when we put on one or more positions in the markets, but we are also very likely moving through leverage space with changes in our equity and the markets, paying the price and reaping the consequences for the various points we traverse through the surface of leverage space.

Thus, various paths can be constructed algorithmically through leverage space to achieve different criteria than the conventional criterion of maximizing expected return to expected variance, or even that of maximizing expected growth (which would be to reside at the peak in the surface). With a path through leverage space in an LSP-style portfolio, a path through the surface of expected growth as a multiple of our starting stake, we are now able to seek solutions to any investment criteria.

Appendix C: Technical Analysis: *beyond Edwards & Magee*

- Section 1: A brief general survey of number driven tools
- Section 2: The creative technician—the work of Richard Arms
- Section 3: The Point and Figure method by an eminent analyst, Mike Moody
- Section 4: One of the most famous of technical routines—Bollinger Bands

Section 1: A brief general survey of number driven tools

Here is something to *contemplate*: A listing of technical analysis tools.

Technical Overlays

1. **Bollinger Bands:** A chart overlay showing the upper and lower limits of “normal” price movements based on the Standard Deviation of prices
2. **Chandelier Exit:** An indicator used to set trailing stop-losses for both long and short position
3. **Ichimoku Cloud:** A comprehensive indicator defining support and resistance, identifies trend direction, gauges momentum and provides trading signals
4. **Kaufman’s Adaptive Moving Average (KAMA):** A unique moving average that accounts for volatility and automatically adjusts to price behavior
5. **Keltner Channels:** A chart overlay showing upper and lower limits for price movements based on the Average True Range of prices
6. **Moving Averages:** Chart overlays showing the “average” value over time. Both Simple Moving Averages (SMAs) and Exponential Moving Averages (EMAs) are explained
7. **Moving Average Envelopes:** A chart overlay consisting of a channel formed from simple moving averages
8. **Parabolic SAR:** A chart overlay showing reversal points below prices in an uptrend and above prices in a downtrend
9. **Pivot Points:** A chart overlay showing reversal points below prices in an uptrend and above prices in a downtrend
10. **Price Channels:** A chart overlay showing a channel made from the highest high and lowest low for a given period of time
11. **Volume by Price:** A chart overlay with a horizontal histogram showing

the amount of activity at various price levels

12. **Volume-Weighted Average Price (VWAP):** An intraday indicator based on total dollar value of all trades for the current day divided by the total trading volume for the current day
13. **ZigZag:** A chart overlay showing filtered price movements greater than a given percentage

Technical Indicators

1. **Accumulation/Distribution Line:** Combines price and volume to show how money may be flowing into or out of a stock
2. **Aroon:** Uses Aroon Up and Aroon Down to determine whether a stock is trending or not
3. **Aroon Oscillator:** Measures the difference between Aroon Up and Aroon Down
4. **Average Directional Index (ADX):** Shows whether a stock is trending or oscillating
5. **Average True Range (ATR):** Measures a stock's volatility
6. **Bandwidth:** Shows the percentage difference between the upper and lower Bollinger Band
7. **%B Indicator:** Shows the relationship between price and standard deviation Bollinger Bands
8. **Chaikin Money Flow (CMF):** Combines price and volume to show how money may be flowing into or out of a stock Alternative to Accumulation/Distribution Line
9. **Chaikin Oscillator:** Combines price and volume to show how money may be flowing into or out of a stock. Based on Accumulation/Distribution Line
10. **Chande Trend Meter (CTM):** Scores the strength of a stock's trend, based on several technical indicators over six different timeframes
11. **Commodity Channel Index (CCI):** Shows a stock's variation from its "typical" price
12. **Coppock Curve:** An oscillator using rate-of-change and a weighted moving average to measure momentum
13. **Correlation Coefficient:** Shows the degree of correlation between two securities over a given timeframe
14. **DecisionPoint Price Momentum Oscillator (PMO):** An advanced momentum indicator tracking a stock's rate of change
15. **Detrended Price Oscillator (DPO):** A price oscillator using a displaced moving average to identify cycles
16. **Ease of Movement (EMV):** An indicator comparing volume and price to identify significant moves
17. **Force Index:** A simple price-and-volume oscillator
18. **Mass Index:** An indicator identifying reversals when the price range widens
19. **MACD (Moving Average Convergence/Divergence Oscillator):** A momentum oscillator based on the difference between two EMAs
20. **MACD Histogram:** A momentum oscillator showing the difference between MACD and its signal line
21. **Money Flow Index (MFI):** A volume-weighted version of RSI showing shifts in buying and selling pressure
22. **Negative Volume Index (NVI):** A cumulative volume-based indicator used to identify trend reversals
23. **On Balance Volume (OBV):** Combines price and volume in a very simple way to show how money may be flowing into or out of a stock
24. **Percentage Price Oscillator (PPO):** A percentage-based version of the MACD indicator
25. **Percentage Volume Oscillator (PVO):** The PPO indicator applied to volume instead of price
26. **Price Relative/Relative Strength:** Technical indicator comparing the performance of two stocks to each other by dividing their price data
27. **Pring's Know Sure Thing (KST):** A momentum oscillator from Martin

- Pring based on the smoothed rate-of-change for four different timeframes
28. **Pring's Special K:** A momentum indicator from Martin Pring combining short-term, intermediate and long-term velocity
 29. **Rate of Change (ROC) and Momentum:** Shows the speed at which a stock's price is changing
 30. **Relative Strength Index (RSI):** Shows how strongly a stock is moving in its current direction
 31. **RRG Relative Strength:** Uses RS-Ratio to measure relative performance and RS-Momentum to measure the momentum of relative performance
 32. **StockCharts Technical Rank (SCTR):** Our relative ranking system based on a stock's technical strength
 33. **Slope:** Measures the rise-over-run for a linear regression
 34. **Standard Deviation (Volatility):** A statistical measure of a stock's volatility
 35. **Stochastic Oscillator (Fast, Slow, and Full):** Shows how a stock's price is doing relative to past movements. Fast, Slow and Full Stochastics are explained
 36. **StochRSI:** Combines Stochastics with the RSI indicator to help you see RSI changes more clearly
 37. **TRIX:** A triple-smoothed moving average of price movements
 38. **True Strength Index:** An indicator measuring trend direction and identifying overbought/oversold levels
 39. **Ulcer Index:** An indicator designed to measure market risk or volatility
 40. **Ultimate Oscillator:** Combines long-term, mid-term and short-term moving averages into one number
 41. **Vortex Indicator:** An indicator designed to identify the start of a new trend and define the current trend
 42. **Williams %R:** Uses Stochastics to determine overbought and oversold levels

Outline

This is a list of tools and indicators available at stockcharts.com. Most if not all of these tools are also available either through software packages (Tradestation, AIQ, Metastock) or online (thinkorswim and others). I display the list so newcomers to technical analysis get an idea of the plethora of tools available. Also, I display the list so that students see the philosopher's stone nature of building systems to beat the market. To briefly review, the philosopher's stone is a stone which allows the owner to convert lead to gold. In the Middle Ages, it was the subject of much dedicated research. At present, to my knowledge, only George Soros has a philosopher's stone, but it is entirely possible for the dedicated student to find in the list a tool or method which will allow him to reap rich rewards.

Displaying the list also prompts me to repeat what we have frequently told our graduate students over the years: You can drive a nail with a screwdriver; so if it works for you it doesn't matter what it looks like. To this end I will comment on some, but not all, of the tools listed here—in some cases revealing tools and systems which, in research, have been fiendishly effective.

Moving averages

Technical Analysis of Stock Trends is often the first book investors read when they become interested in the technical approach to the market. This is as it should be and also new analysts need to be informed of the amazingly varied field of technical analysis. Chart

analysis is the cornerstone of technical analysis and a required field of knowledge. If the analyst is more statistically oriented or is looking for an algorithmic method he must search through the numerous alternatives in the technical toolbox.

This appendix is intended not to teach the reader the details of operating a moving average or stochastics routine, but to place the various technical tools and systems (or methods) in context and in perspective. The first of these tools is the moving average. We personally can testify to the power of these systems, having reaped outsize profits using moving average systems. Note these profits were gained in roaring bull markets. In sideways markets trading a moving average can be the equivalent of producing sausage with a meat grinder. Thus, having confidence in the state of the market is an absolute necessity. The effect of a moving average is to smooth raw price behavior and clarify the trend of the market. The bells and whistles you can hang on a moving average are like a Christmas tree. You can use the moving average as input to a signal --buying when the price penetrates above the MA line. Using the MA line as a stop, selling when prices fall below the MA line. Or you can construct a filter—buying or selling when prices pierce the line by x%. The possible variations are infinite.

As is probably obvious, MA systems are in the main trend following systems. As are virtually all Edwards & Magee methods and systems. The reason for attempting to employ trending systems is, without exception, long-term trend following results in larger profits than any other trading method.

In general, the market makes something of a shibboleth of two moving averages—the 50-day and the 200-day. The 50-day is thought by the media and public to be a warning crack in the market and the 200-day penetration is thought to be a bear market phenomenon. In our trading, we watch the 50 and the 200--day but we don't use them as signals. We are usually more concerned with patterns and the character of the market rather than using these moving averages as signals. Rather, we use them as alerts as to what the public is thinking and depend on Basing Point analysis for stops.

Magee's consideration of moving averages is contained in [Chapter 36](#). It is amusing to quote a remark of his upon discovering moving averages: "...one could derive a sort of Automated Trendline that would definitely interpret the change of trend... It seemed almost too good to be true. As a matter of fact, it was too good to be true."

Personally, we have experienced excellent profitability with moving average systems. While we originally thought this was a sign of genius, with time we realized that the market was the genius and my company was trading in a roaring bull market—and indeed we were—the monstrous commodity bull markets of the '70s—the Russian wheat market, the Hunt silver market.... Almost anything, including bonobo monkeys throwing darts, works in a tidal market.

Nevertheless, a long moving average can keep the investor fully invested for months—if not years. In the case of the great Bull Market of 2009–2017, it took years, as evident by the chart with a 200-period simple moving average. ([Figure C.1](#))

A number of different types of moving averages are used by technicians: simple, exponential, triangular, variable, and weighted. The distinguishing difference amongst these methods is the simple method weights all prices equally. Weighted and exponential routines place a higher value on the most recent data, enabling more sensitive and rapid reaction. Triangular averages put more weight in the middle of the time period and variable averages adjust the weighting according to the volatility of prices.

Does this smack of the philosopher's stone? One thing it should tell the newcomer—and grizzled veteran—is the search for a market beating method is incessant and indefatigable—it never ceases.



Figure C.1 A 200 period moving average on a weekly chart. The investor would never (virtually never) have felt the least anxiety for his position. His confidence in the trend would have been buttressed by the MA line.

Contemplating an exponential versus a simple moving average the difference is probably not worth the trouble. Trading decisions might be moderately accelerated on trading length systems (–5–15 days for very short term; 15–23 days for short term; and 24–50 days for intermediate term; and 100 days and up for long term. With recent thinking we might add super long term—that is 200 days or even longer weekly based systems.)

The conventional way to use a moving average system is to go long when price breaks above the moving average and sell when price falls below the moving average. Probably the most usual modification to these systems is to put a filter on them, for example requiring the penetration of the moving average line by 1 (or x) % to assure validity. (Cf. [Chapter 36](#), the Pentad system) We think, based on experience, this may be the most effective way to employ this tool. Sometimes two moving averages are used. Signals are created by the interplay of the moving average lines, one moving above or below the other. This is a characteristic of MACD, which will be discussed later.

Stochastics

The first thing to do when studying stochastics is stop trying to figure what “stochastics” means. Of course, it has a dictionary meaning to be discussed later. Right now, the reader should put aside the question of actual meaning and consider what it means in the discipline of technical analysis.

Markets have two basic theoretical (and actual) states: trending or mean reverting. If the market is non-trending, swinging back and forth, up and down, traders need tools to deal with it. If they want to trade under these conditions they turn to oscillators. The purpose of the oscillator is to aid in identifying wave bottoms and wave tops. The stochastic algorithm is one of the more popular of these oscillators.

Stochastics establishes a “window” on the market for the analysis of prices. The default value for this window is 14 bars, but different practitioners customize the value for their own use. The price highs and lows within this window are integral to the analysis. The routine establishes a line (called %K) as the essential benchmark or guide of the analysis. A second line is calculated (%D) using a simple moving average of %K. This moving average is quite short (3 periods default value) and thus creates a line of great sensitivity. Conventionally these lines are displayed on a scale from 1 to 100. Signals are generated by values of 20 and 80. The routine buys when the low value is 20 and sells upon a high value of 80. In short, selling strength and buying weakness. 20 and 80 refer to where the closing price is relative to the window trading range, thus placing price position at 20% or 80% of the range. Other means of generating signals are available, to wit the interaction of the two lines, as for example, the %K line falling below or rising above the %D line. (Figure C.2)

As with most tools, the technician can modify the routine to suit his whim.

MACD (Moving Average Convergence/Divergence)

MACD is a trend following momentum indicator that shows the relationship between two moving averages of price. It is calculated as the difference between a 26 and a 12-day exponential moving average. Gerald Appel, who is reported to be the creator of the routine, placed a 9-day exponential moving average on top of the MACD as a means of identifying trading signals. Generally, a sell signal occurs when MACD falls below the signal line and a buy signal when it rises above the signal line. Trading also occurs as MACD goes above and below zero. (Figure C.3)

As one can well imagine with 55 indicators (and counting), there is a tool for every occasion. One must always remember the rule of tools: To a man with a hammer everything looks like a nail. Rather than attempting to explicate every tool, I will restrict myself to the obvious, after reminding the reader that careless and uneducated use of any tool can seriously endanger his capital.

Some other chosen indicators to consider: ADX, a tool which shows whether an issue is trending or oscillating. This tool is easily replaced with a ruler and the naked eye. This is the case with many of the indicators; they have been developed by their inventors to attempt to remove ambiguity from the market—a desire the experienced chart analyst doesn’t possess. The chart analyst looks at a chart and most of time it is obvious. If not, it becomes obvious the moment a ruler is laid on it. Another tool which does more or less the same is the **Aroon** which uses **Aroon Up** and **Aroon Down** to determine whether an issue is trending or not. Once again, a question which is painfully obvious at first glance to the chart analyst. We should make clear that some intelligent analyst has used each of these tools to wring a profit from the market. **Accumulation /Distribution Line** showing how money flows in and out



Figure C.2 Stochastic routine on a gold chart. Obviously interpreting the indicator requires some experience and discrimination, but this is true of all number driven indicators.

of an issue may be useful to some practitioners, as may **Volume by price** which shows the amount of activity at various price levels. **Pivot points**—a relatively simple mechanism evidently popular with many traders can at least give the trader unambiguous trading points.

Which brings us to a central technical and philosophical point: Almost any system is better than no method (or system) at all. The problem for the inexperienced trader—or investor—is *what system*. This book answers that question for most investors and is a good method while the investor refines his own methods. We continue to say the trader who invents a system without thorough knowledge of this book is putting life limb and capital at risk. This statement may be a little less true now than in years past—simply because so much of this book’s material has leaked via osmosis into general investor knowledge—usually unconsciously, but often through outright imitation or worse. Not a practice which outrages us, though, sometimes amuses us—but no tears. Also, as we have been in education for many years, we observe the spread of knowledge as something the enlightened and educated do as a responsibility to the community and humanity.

Point and Figure analysis

Bar chart analysis has so dominated investor usage for so long (partly because of this book) that even many experienced analysts have ignored an interesting and valuable method which we will explore briefly here. That method is Point and Figure analysis.

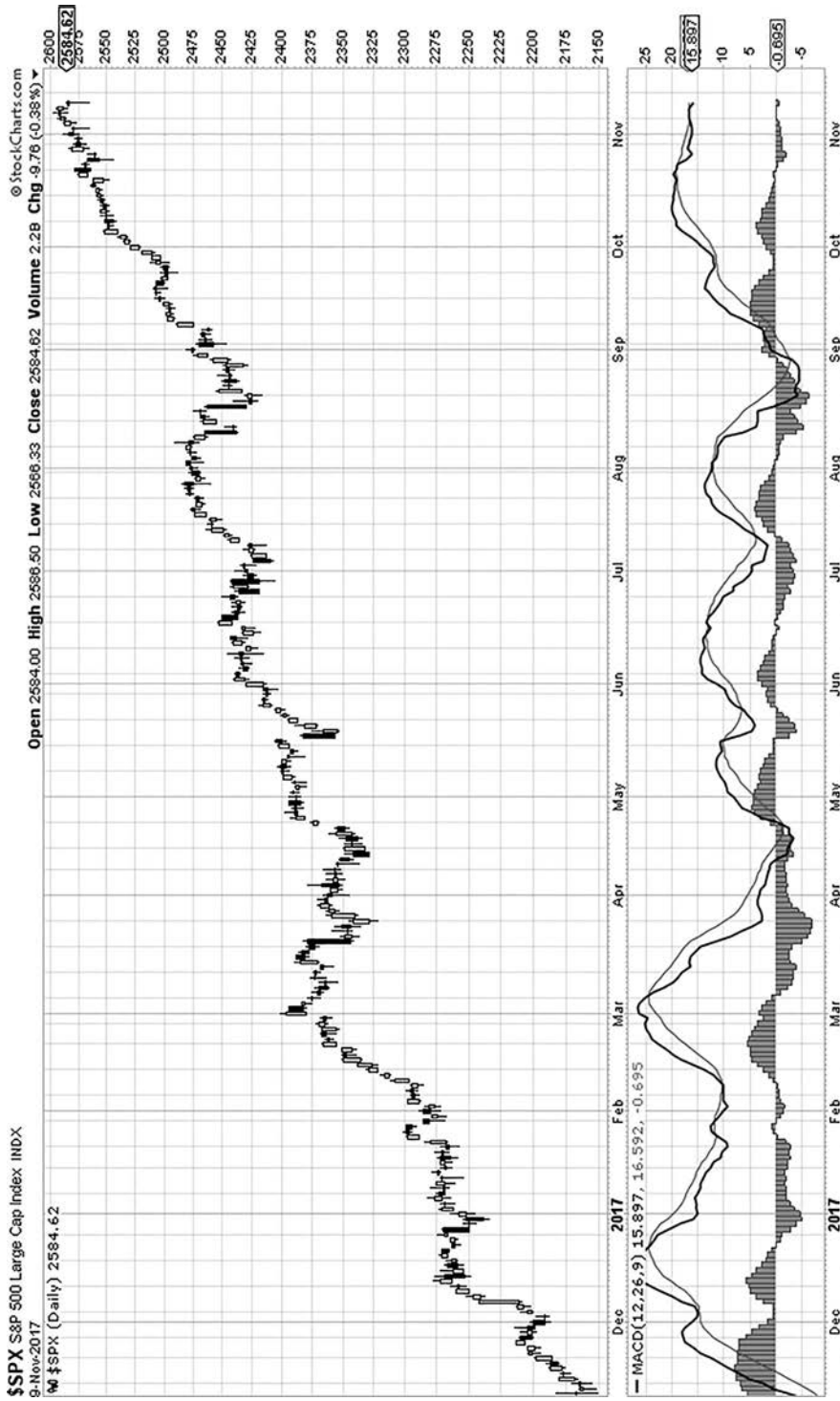


Figure C.3 MACD on a gold chart. MACD is a popular tool and deemed effective by many traders. Readers can see why from the chart.

Said by some to be an invention of Charles Dow, and by others to be created by the Russians, PnF charting has shown itself to be surprisingly effective in our experience. When we examine some of its characteristics we get an idea why. Bar charts represent price action (open high low close) with a vertical bar with cross hatches for open and close. The x axis represents time, the y , price. PnF ignores time for the most part, though there is a nod to it as we will see.

Several basic decisions are made in the construction of the chart. Since the chart is made up of boxes, the size of the box must be determined. The analyst chooses a box style appropriate to the duration of the chart. Obviously, if one is dealing with years of data in the INDU the box must be large—50, 100 points. At shorter durations wave analysis would suggest a good size; and at any rate online routines present reasonably sized charts. In general, one might say larger boxes furnish perspective and smaller boxes furnish detail.

The other choice the analyst must make is reversal size. The traditional choice here is a three box reversal. Thus, if the box size is 4 and we are in an x column, 12 points down must occur to change to a column of 0s and three 0s would be drawn in the next column. And although time is usually ignored, a box is marked with a month indicator as a column rolls over to a new month.

All these options are subject to change and adjustment by the individual technician. What is more, there are other varieties of PnF charts—one box reversal, for example, but the basic idea is the same. Using a variety of methods, one may make forecasts from the chart. Let me emphasize: Treat this method and any other algorithmic method with caution until you have thoroughly examined it (Figure C.4).

Next for comparison, a bar (Candlestick) chart shows the traditional picture of this period (Figure C.5).

As the reader can see, PnF charting is a fascinating and valuable method. Many investors rely on this method alone for their analyses.

As with all of the tools surveyed here no attempt is made to give a definitive exploration of the tool or to describe the mechanics of its creation. Those details about PnF charts are ably discharged by the books *Point & Figure Charting* by Thomas Dorsey and *The Definitive Guide to Point and Figure* by Jeremy du Plessis. Later in this appendix Mike Moody will discuss the method in a much more sophisticated way.

Section 2: The creative technician—the work of Richard Arms

The Arms Index (TRIN) by Richard Arms

In 1967, when I was still an unknown in Technical Analysis and was working as a stockbroker for a major NYSE firm, we moved into new modernized offices. Among the improvements were new quote machines, which actually had a tiny screen to display the information. Moreover, the data included some fascinating numbers. It was possible to see the number of stocks that were up and the number of stocks that were down at any time, and even a total of the volume traded on the up stocks and a total of the volume traded on the down stocks. Looking at this, I began to wonder if it could serve as an indicator, telling us if the ratio of up to downs was the same as the ratio of up volume to down volume. If not, deviations from normality might show when the buyers or the sellers were more in control. In seconds, the Arms Index, or TRIN, came into being in my mind and then in my research. An article in Barron's was all that was needed and it took on a life of its own.

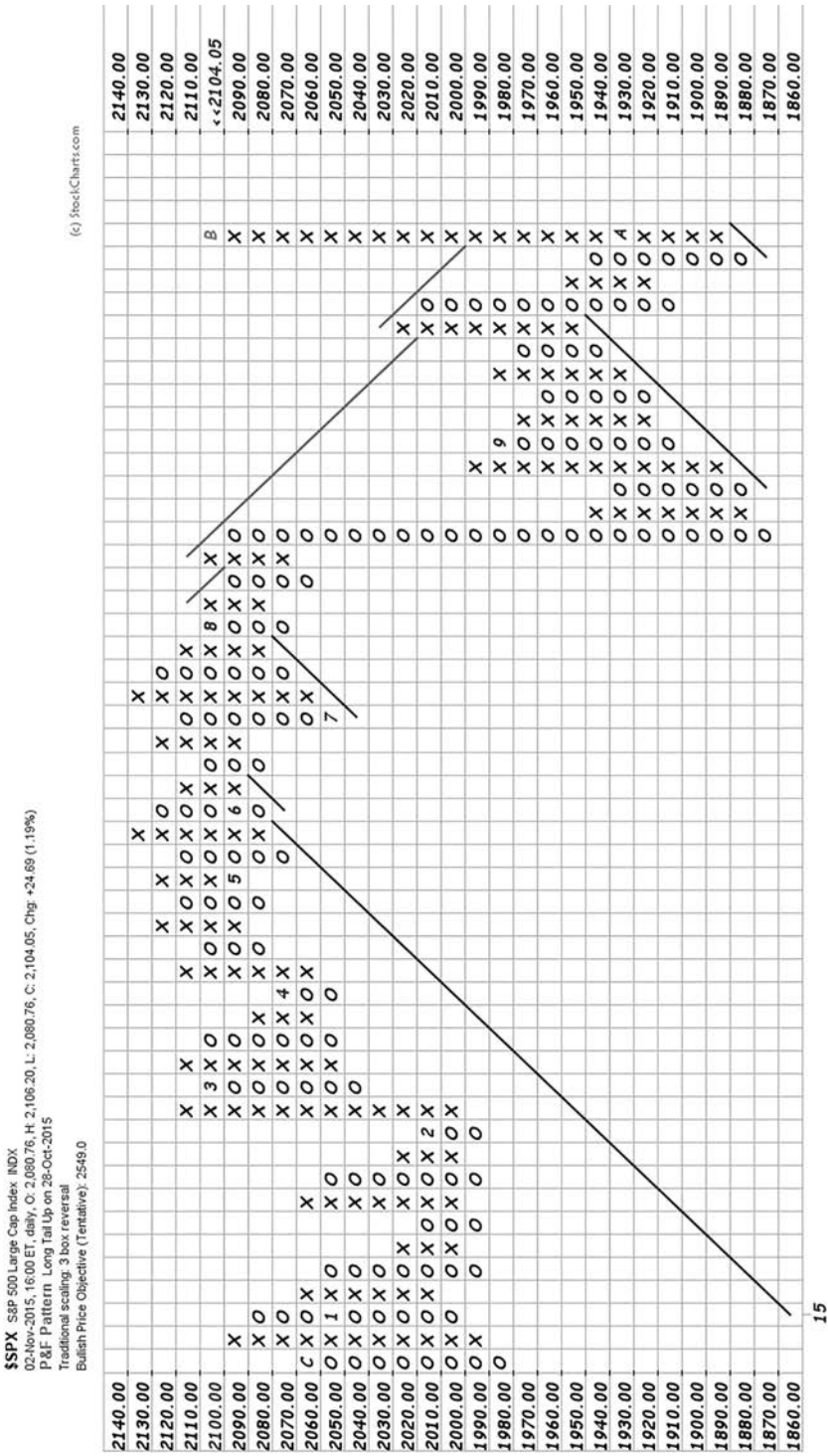


Figure C.4 Here from the edwards-magee.com website is a PnF chart from November 2015 which looks for a target of 2549—this when the S&P was around 2000.

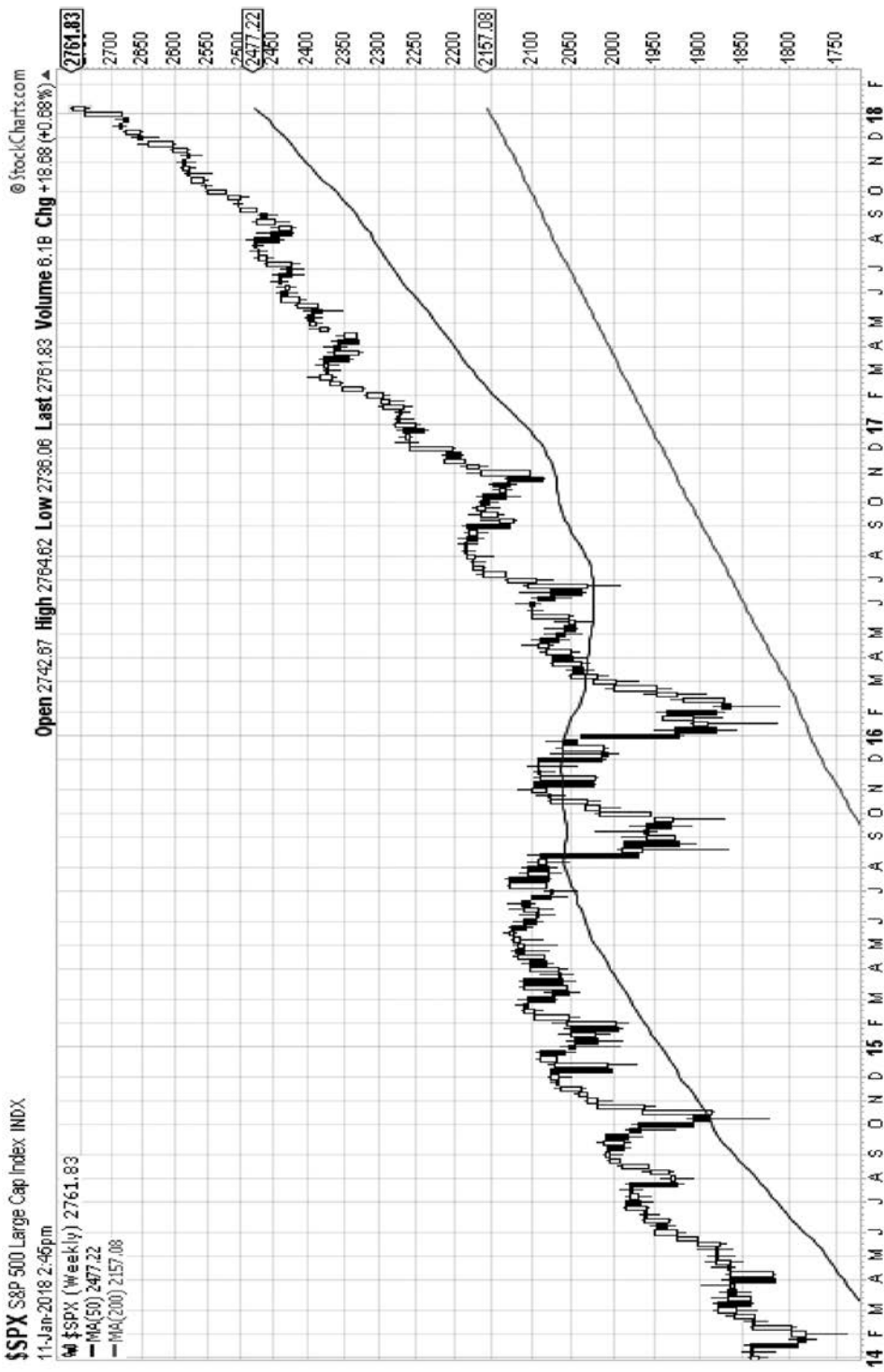


Figure C.5 Here also from the edwards-magee.com website is a chart from November 2015 for comparison with the above PnF chart.

The calculation

With so many sources, such as newspapers, television stations and every quotation service, providing the calculated index most users will never need to make the calculation themselves. However, in order to appreciate the significance of the index one should be familiar with its derivation. The Formula is:

$$\frac{(\text{ADVANCES}/\text{DECLINES})}{(\text{ADV. VOL.}/\text{DECL. VOL.})} = \text{Arms Index}$$

At any time, we can retrieve the numbers showing how many stocks are up for the day, how many stocks are down for the day, the volume on the advancing stocks and the volume on the declining stocks. Plugging them into the above formula we end up with a single number, the Arms Index for that instant. The above example* (footnote) has produced a somewhat bearish index. An index of 1.00 is a standoff, indicating both the advancing stocks and the declining stock received their fair share of the volume. A value over 1.00 is Bearish, indicating the declining stocks are receiving more than their share of the volume. An index lower than 1.00 is Bullish since the up stocks are receiving more than their fair share of the volume. Normally, the index will fluctuate closely around 1.00. We have seen days end with an index as low as .19 and other days with an index over 10.00, but these were rare occurrences, where the traders were reacting to extremes in euphoria or fear. Normally, the index will be somewhere between .65 and 1.75.

EXAMPLE THE ARMS INDEX: ADVANCES 1024 DECLINES 2030 ADVANCING VOLUME 299,790,000 DECLINING VOLUME 786,830,000 1024/2030 = .504 1024/2030 = .504 299790/786830 = .381 .504/.381 = 1.32 .504/.381 = 1.32 (ADVANCES /DECLINES) (ADV. VOL. /DECL. VOL.) (ADV. VOL. /DECL. VOL.) = THE ARMS INDEX (TRIN) EXAMPLE

The reasoning

At any time, the Arms Index is telling us whether the up stocks are getting their share of the volume or not. If the index is over 1.00 the down stocks are overpowering the up stocks. (Remember, under 1.00 for the raw number is good, and over 1.00 is bad. It is counter-intuitive, but it is the way the index was first calculated, and it's late to try to change it now. If that really bothers you, invert the calculation and it will be more intuitive, but you will be out of step with everyone else using the index. You will see the index is dealing with comparing two ratios, so it is commonplace to have a market that appears to be Bullish because of there being more stocks up than down, but is actually under pressure, in that those up stocks are not getting their share of the volume, and the index is Bearish. Similarly, we can have more stocks down than up, but have a Bullish index, because the up stocks are getting more than their fair share of the volume. The Arms Index is measuring the internal dynamics of the market—dynamics that may not be otherwise readily apparent. A Bullish Arms Index in a slumping market may be telling us there is accumulation going on, under the guise of a down market.

Using the index

The index was originally developed as an intraday timing tool, and it still is valuable in that role. There are two things to look at: the actual reading and the way it is changing during the day. The actual level is tending to reflect the current condition; sometimes a Bullish reading in a declining market or a Bearish reading in a rising market makes the move suspect. More often, the value will be in line with the current market activity, but watch for the big extremes.

Not always, of course, but often, the index will go too far in one direction, and suggest the move is overdone. It is reflecting those times when reason is being abandoned and a blind panic or a feeding frenzy is dominating the trading. A very high or a very low index can be a sign it is time to be a contrarian. The other intraday use is watching for change, rather than just the actual value of the index. Often the index will change direction before a reversal becomes apparent in the averages. A Bearish index in a Bearish market that suddenly starts to move toward lower (less Bearish) levels may be a warning the market is about to turn up. The same is true bullish numbers that start to get higher; suggesting a downturn may be developing. Most often, though, the index is now used on a longer-term basis. The most common use is a simple 10-day moving average of the closing daily numbers. This tends to be a good indicator for market moves lasting a few weeks. For short-term trading, I like the 5-day moving average. In order to get a feel for longer-term trends, I use a 21-day and a 55-day. The big market moves can be recognized by using very big moving averages, such as the 233-day. On each of the following charts, we are looking at simple moving averages of the Arms Index on an inverted scale. The red line is the index and the black line is the market. Since the scale has been inverted for the index, the lows on the indicator line tend to coincide with low points in the market. Similarly, peaks in the index coincide with the market tops. I have chosen different time intervals on each of the charts below since the longer-term moving averages are used for longer-term predictions. I have not given any hard-and-fast numerical levels as buy and sell signals because we need to look at the index in the context of the current market. Buy signals in a Bear Market are at more oversold levels than they are in a Bull Market. Extreme peaks and troughs, compared to what has been seen recently, tell when it is time to become a buyer or a seller. These are only a few applications and examples. Not shown are Arms Indices, now available, for NASDAQ and also for a number of foreign markets, in which the index is equally effective. Immense amounts of work, using many different methods, has been done over the years since the index was first made public. Anyone wishing to know more is referred to the various books by Richard W. Arms, Jr. [Figure C.6](#) illustrates the index and shows Equivolume chart for context.

5-DAY and 10-DAY NYSE

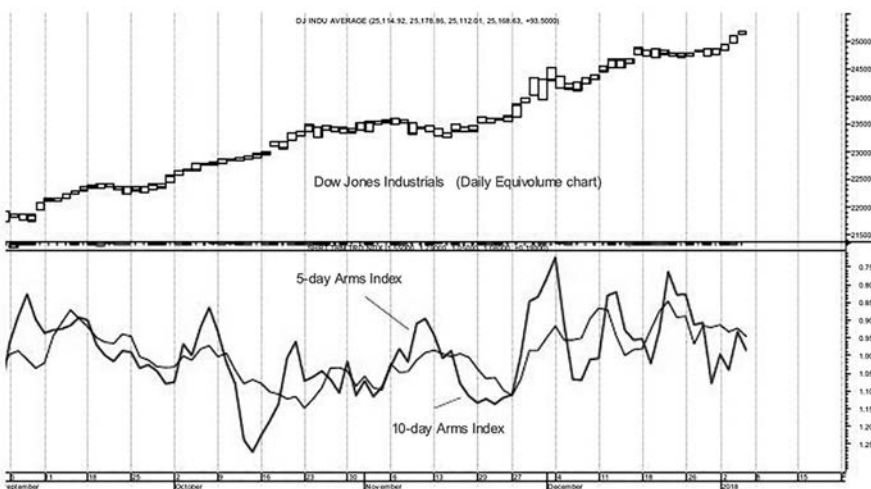


Figure C.6 Notice how on the Equivolume chart the breakaway is accentuated by the wide bars. The technician is constantly in need of accents and alerts like this (cf. also [Figure C.7](#)).

Equivolume charting

Introduction

In 1971, with the Arms Index a part of Wall Street methodology, I had become more fascinated by the role of Volume in the marketplace. I had been spending great deal of time studying an early edition of the book you now hold but had also been learning the ideas of Richard Wyckoff; both placed a great deal of emphasis upon the importance of Volume in evaluating stock movements. As I was driving home from work one afternoon, I was thinking about stock charts and volume and suddenly realized there might be a better way of depicting trading action. What if we could substitute volume for time on our charts? We could depict each day as a rectangle rather than the traditional line on a bar chart. The width of the box would represent the volume for that day. Unbeknownst to me, I was reinventing a method suggested decades earlier, but not widely popularized. I decided to call my new approach Equivolume (cf. [Figures C.7](#) and [C.11](#)).



Figure C.7 Once again the wide volume indicating bars alert the technician to an important surge in the market.

The technique

In the days before the proliferation of computers, implementing the concept of Equivolume was far from easy. In order to lift the volume from the bottom of the chart and insert it in the posting, a scale for each stock had to be devised based upon its normal trading. That scale could change if the stocks went into a phase of much heavier or lighter trading. I will not go into the calculations I used at the beginning, but it seemed to work. I hired a lady to draw dozens of charts for me and proceeded to learn to read what they said; this led to my first book. Later, each new advancement justified another book. Once people a lot smarter than me figured out how to let a computer do the work, it became a lot easier. Now, one can get Equivolume charts on most major charting services, so there is really no need to wonder about the scaling. Suffice it to say, the rectangles on any chart are proportional to one another in reflecting the volume.

The result

An Equivolume chart does not in any way change the high and low on each entry, but when combined with the volume it becomes a box, the shape and size of which reflects supply and demand for that trading period. All the techniques popularized by the masters who first published this book are valid when used with Equivolume charts.

However, for example, trendlines tend to be broken earlier if volume becomes heavier, and breakouts are more noticeable if volume increases, thereby legitimizing them, as are levels of support and resistance. Equivolume uses all the same data, but just gives us a different picture, which includes all the data in a single entry. Below are two charts: a bar chart and an Equivolume chart of the same stock over the same time period. This is three months of trading in General Electric ([Figure C.8](#)).

The chart below is posted on a weekly basis ([Figure C.9](#)).

Conclusion

Equivolume represented a far better way of looking at market action because each entry told a more comprehensive story. The shape of the box indicated how easy or hard it was for prices to move while the size of each box showed the interest intensity. It was a method that could be used for any investment product, as long as both price movement and volume numbers were available. It has become a complete methodology and is readily available on a plethora of data services.

Arms CandleVolume charting

After the introduction and wide adoption of Equivolume, the next logical step was to combine the Equivolume concept with the Japanese method known as Candlesticks. Yet, I was slow to do this because one or more of the major charting services had already included a partial joining of the two techniques, calling it CandleVolume, but doing it in such a way some of the visual advantages of Equivolume were lost in the process. Yet, if I did the combination of the methods in my way, completely merging the two techniques, I found it could be another great advance in the way we looked at charts. Clumsily double printing of charts, I was able to work on it and found the results to be very helpful, and since the name CandleVolume was already taken, I started calling it Arms CandleVolume. Then, after my first speech on the approach, to the International Federation of Technical Analysts in San Francisco a few years ago, the problem was solved. Within minutes of completing the speech the President of Stockcharts.com, who had been in the audience, showed me he had quickly adapted their software for the new technique and, with my approval, would immediately include it in their service, which they did. The illustrations in this article are from that source.



Figure C.8 This is three months of trading in General Electric illustrating two different but complimentary pictures of the market. By dragging the volume off the bottom margin and including it in the price we have made it apparent all days are not equal in importance. Moreover, the concept of eliminating time as a market measurement led, in later studies and books, to the development of Volume Cyclicity, Ease of Movement and of Volume Adjusted moving averages. It had become apparent the market is a volume function. If nothing trades, nothing happens; The more trading, the more importance.



Figure C.9 Vividly illustrating the usefulness of the Equivolume chart like signposts on a battlefield: Lots of fighting here.

The advantages

Although the open and the close appear on some versions of bar charts, the Equivolume methodology had ignored them. The Candlestick charts did contain the opens and closes; in fact, they emphasized them. It led to different and fascinating visual patterns using the ancient methods from their origin given imaginative and memorable names. I have, in order to distinguish the new methods and to emphasize adding volume changes the meanings very often, tended to use my own nomenclature. The Japanese methods are wonderful, but the volume adds a new dimension. As one starts to use this technique it becomes ever more apparent the open and close levels, added to high and low and volume, are providing a powerful additional tool.

The technique

All we have done is to place the Candlestick inside the Equivolume box. However, there is a vertical line through the box, the wick, and there are two horizontal lines across the box, the open and the close. Above and below these lines are the legs. If the open is lower than the close the body of the posting will be black and if it is higher the body will be red. If color is not available, the body can be filled or unfilled. Below we see a comparison of the three techniques: Bar chart, Equivolume chart, and Arms CandleVolume chart. They are all daily postings of Newmont Mining over the same three-month period ([Figure C.10](#)).

To delve into the interpretation is beyond the scope of this article, but it is clear, I think that each day, each posting, tells us a concise story of supply and demand; of conflicting pressure of buyers and sellers. Box sizes tell us of overall enthusiasm while box shapes tell us how easy or hard it is for price movement to occur. Moreover, the difference between the open and the close tell us whether prices are stalled or moving. Box shape, size, volume and Candle body size all present a picture of ease or difficulty of movement.



Figure C.10 Notice the increasing analysis of information that occurs from one method to the next moving from conventional bar chart through Equivolume to Candlevolume.



Figure C.11 Notice the increase in information as we move to the newer technique. Candlevolume combines virtues of Equivolume and Candlestick charts.

Point & Figure technical analysis by Mike Moody

Like most technical analysts, my exposure to charts came initially from bar charts. I started as a naïve stockbroker, hoping to understand markets to help my clients make money. I soon learned the “account executive” position was—from the faulty point of view of the brokerage firm—primarily a sales job. I quickly learned to use bar charts as a form of self-defense from the firm’s research department. The charts could be used to examine the position of any security the firm’s research department was recommending, in the often vain hope the recommendation and the chart were in synch.

I found the bar charts most commonly in use had a limited perspective, usually only about a year of price data. Soon I was taking an additional charting service that used weekly bar charts—including a relative strength line as well.

My quest for perspective ended when I was introduced to the Point and Figure chart. I think it is an extraordinarily flexible and useful complement to bar charts because of the perspective it can supply. Analysts like Richard Wyckoff used both bar charts and Point and Figure charts in tandem because of their different features and strengths.

Point and Figure charts are now fairly rare, which is unfortunate. Novices often do not understand what they are looking at or how a Point and Figure chart is constructed.

I’ve included a simple example chart below ([Figure C.12](#)).

This chart is an example of a traditionally scaled 3-box reversal Point and Figure chart. The chart style was popularized by Abe Cohen of Chartcraft. The price scale is on the left. (You can see that price boxes below \$20 are smaller than price boxes from \$21 to \$100. This is a clever, pre-computer attempt to adjust to a more logarithmic scale.) Columns of Xs denote rising prices and columns of Os indicate falling prices. The small numbers embedded in the chart indicate the month a security first printed that price. (1-9 for January through September, and A-C for October through December—another elegant early solution to fit a time identifier in a single-width box.)

The perspective is obvious, as this chart covers well over a decade. However, for a technical analyst used to bar charts, two things stick out. First, there is no time scale; years where a lot happened are wide because many reversals occurred. Years where the stock was quiet are represented by far fewer columns. Second, it is not immediately obvious how a 3-box reversal chart is constructed; it’s simple but requires a short explanation.

A 3-box reversal chart is designed to filter out any price movements less than 3 boxes, whatever that may be on the chart. With a 3-box reversal chart, there will never be a column that consists of less than 3 boxes. The general rule will hold—the minimum column depth will be a function of the reversal value used.

Let’s pick up the chart in 2012, as it first reversed upward to \$34 in September. There is a simple flow chart logic to plotting a Point and Figure chart.

1. If you are rising in a column of Xs, first look to see if a new price high was made. If yes, put a new X in the column.
2. If no new high was made, check to see if a 3-box reversal down occurred. If yes, put in a new column of 3 Os.
3. If no new price high was made or no reversal down was made, do nothing.

It’s the “do nothing” that is different because time can pass with no adjustment made to the chart. The chart is a record of pure price movement.

By November 2012, General Mills had printed \$35—without ever reversing down 3 boxes or more. In January 2013, the price hit \$36. February 2013 was a good month—the

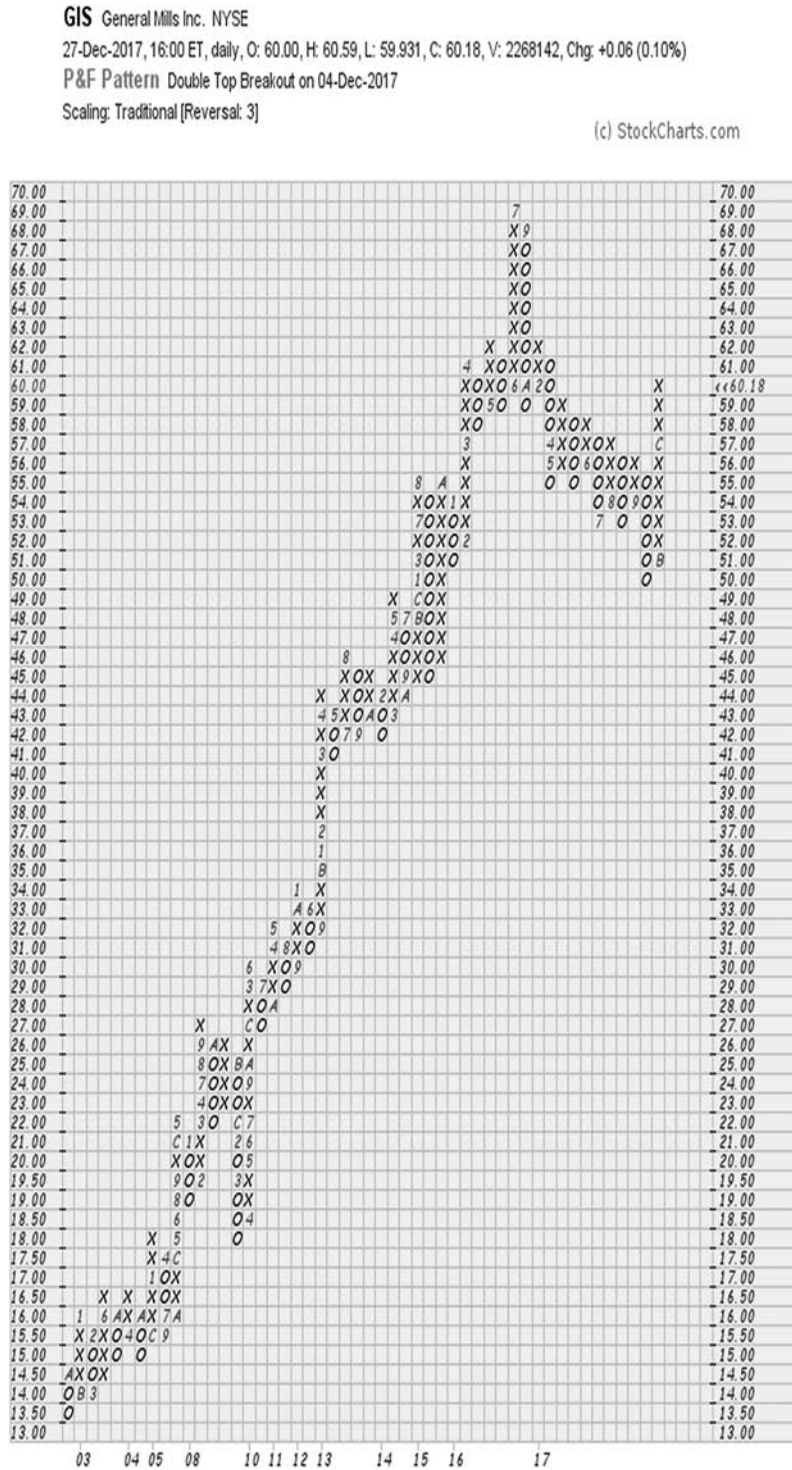


Figure C.12 Years of data for GIS.

price hit \$37 and continued to \$40. \$41 was reached in March, and \$42 and \$43 in April. May 2013 saw the first 3-box reversal, from a peak price of \$44 to the minimum reversal level of \$41.

Key to the value of Point and Figure charts is their flexibility. Many early practitioners of Point and Figure used single-box reversal charts calculated with intraday data. This style of chart looks more similar to a bar chart, but actually captures volatility particularly well because of the use of intraday data. With a bar chart, each day might be a single bar, but during a particularly volatile period for the market or for an individual stock, a single-box reversal chart can put in many, many columns.

Like a bar chart, price targets with a Point and Figure chart are usually estimated from the width of the base—and during a particularly volatile period like 1987 or 2008 many, many reversals can occur in a single day! Alan Shaw, formerly the chief market technician at Smith Barney, believed that intraday, single-box reversal point & figure charts were the premier way to estimate price moves from a base. As a guide to this type of chart, Alan always recommended Alexander Wheelan's *Study Helps in Point and Figure Technique*. On more than one occasion, this knowledge allowed Alan to estimate large price moves when the base on a bar chart was narrow.

The computer age has improved Point and Figure charting immeasurably. The computer has no trouble creating true logarithmic charts. Here is the same chart of General Mills, this time using a 2% box and a 3-box reversal. Also shown is the traditional 45-degree trendline, drawn from prominent highs or lows. (Figure C.13)

Percentage charts are, I think, significantly clearer. There is no reason not to use them now since they can be so easily generated. (All of the charts here are courtesy of StockCharts.com.)

Detail can be added by shrinking the box size; greater perspective can be achieved with a larger box size.

It seems simple but changing the box size or reversal value allows the Point and Figure chart to be adapted to any time frame, from scalping to swing trading to infinity.

The chart below, using a 1% box size with a 3-box reversal shows a clear breakout from a downtrend that is not visible at the same price on a chart with a larger scale. (Figure C.14)

Moving averages can also be helpful on Point and Figure charts to help determine trend. The difference with a Point and Figure chart is that the moving average is a moving average of the center point of a certain number of columns.

The chart below simply replaces the 45-degree trendline with a 10-column moving average. (Figure C.15)

Trend is critically important, but as my career developed into money management, it became important also to measure the power and durability of the trend. The Chartcraft service had, for years, calculated a relative strength ratio (stock price divided by index price), adjusted the decimal points to make it chartable, and then plotted it on a traditional 3-box reversal chart. At Dorsey Wright, we changed these relative strength charts to percentage charts and gained vast additional perspective.

The chart below, of Danaher Corp., is a relative strength chart using a 6% scale with a 3-box reversal value. The price of Danaher is divided by the price of an S&P 500 ETF and plotted on a log scale. Suddenly, it becomes apparent—in broad terms—Danaher has been outperforming the market for more than 15 years. (Figure C.16)

The final strength of Point and Figure charts is their objectivity. A skilled practitioner with a bar chart can be very effective, but one analyst might discern a continuation pattern where another sees a different pattern in a larger or smaller time frame. Two analysts

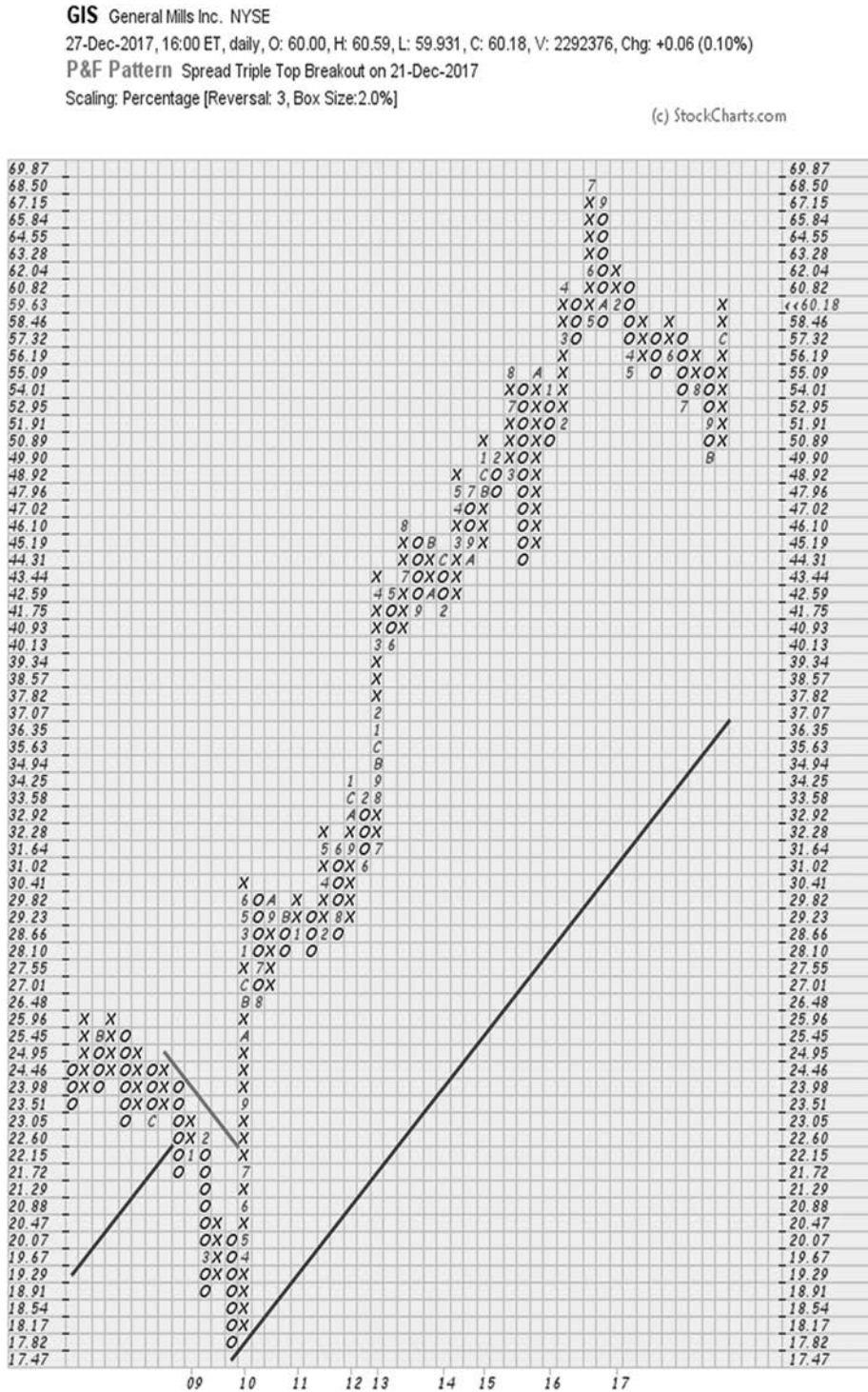


Figure C.13 An alternative view of General Mills.

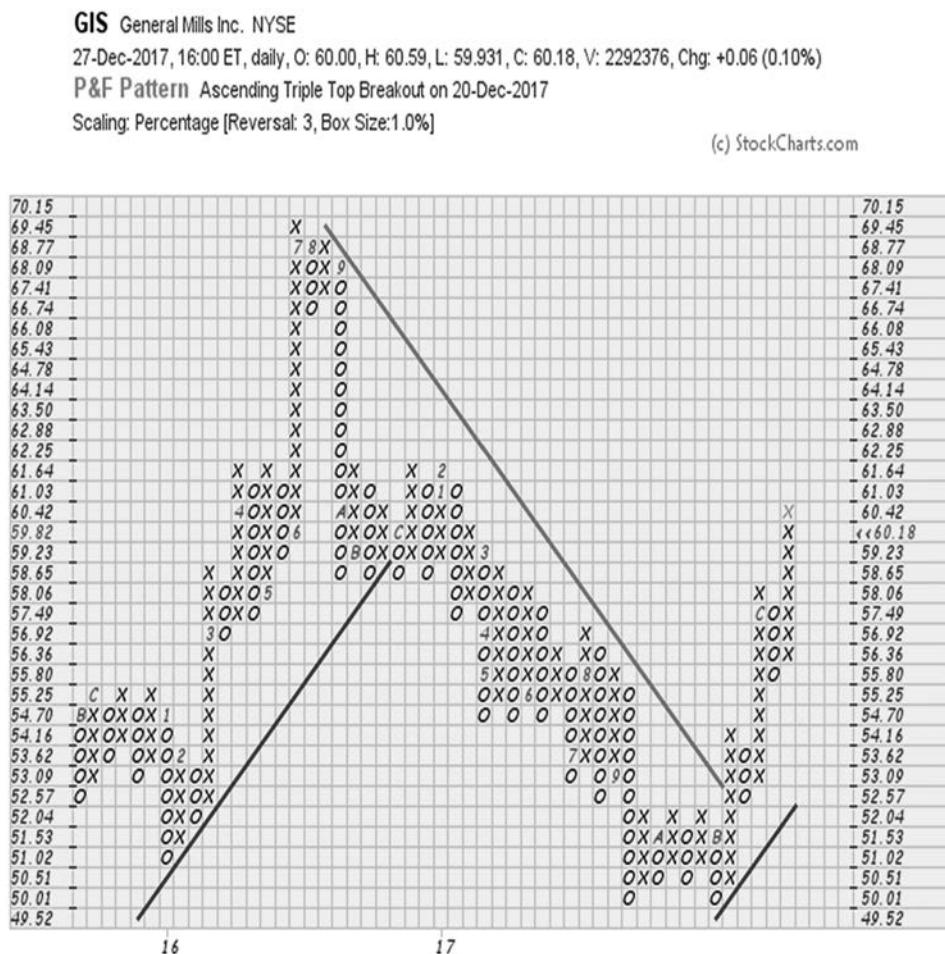


Figure C.14 Clarifying the issue with percentage boxes.

looking at the same Point and Figure chart, on the other hand, will always be in agreement about whether the chart is on a buy signal or a sell signal.

The criterion is incredibly simple and unambiguous. If the price exceeds the immediately previous column of Xs, it is on a buy signal. If the price declines below the immediately previous column of Os, it is on a sell signal. On the Danaher relative strength chart, for example, there is a buy signal at 10.88 in October 2000. (It exceeded the previous rising column, which topped out at 10.27.) There is no subsequent sell signal, as no column of Os ever falls below the previous column of Os. A security, by definition, is always on either a buy or sell signal.

The objective nature of Point and Figure can be useful in other realms as well. Market indicators or diffusion indexes can be plotted on a Point and Figure chart and objectively graded as a buy or sell, for example.

Perspective, flexibility, and objectivity, then, are the cardinal virtues of the Point and Figure charting method. They give a perspective, unlike a bar chart, abstracting pure price and giving deep insight into volatility. They have almost unlimited flexibility to be

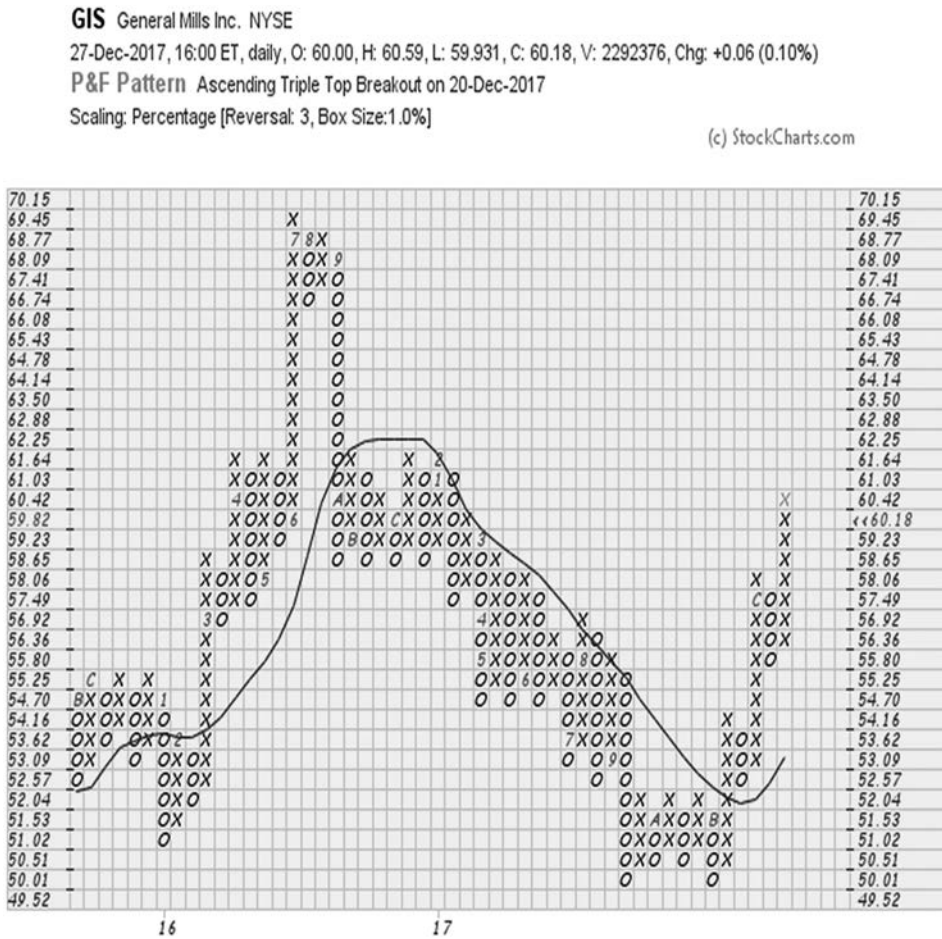


Figure C.15 Overlaying the PnF with a moving average.

adapted to different scales, time frames, and purposes. Finally, their objectivity can become a powerful tool in the hands of any analyst.

For further investigation, some of the best-known resources are:

Alexander Wheelan, *Study Helps in Point & Figure Technique*

A.W. Cohen, *How to Use the Three-Point Reversal Method of Point & Figure Stock Market Trading: A Technical Approach to Stock Market Trading*

Thomas J. Dorsey, *Point and Figure Charting: The Essential Application for Forecasting and Tracking Market Prices*

Jeremy du Plessis, *twenty-first Century Point and Figure: New and Advanced Techniques for Using Point and Figure Charts*

Bollinger Bands

The creation of John Bollinger, Bollinger Bands is an inventive solution to the question of measuring and displaying price volatility. Technicians had previously developed channels

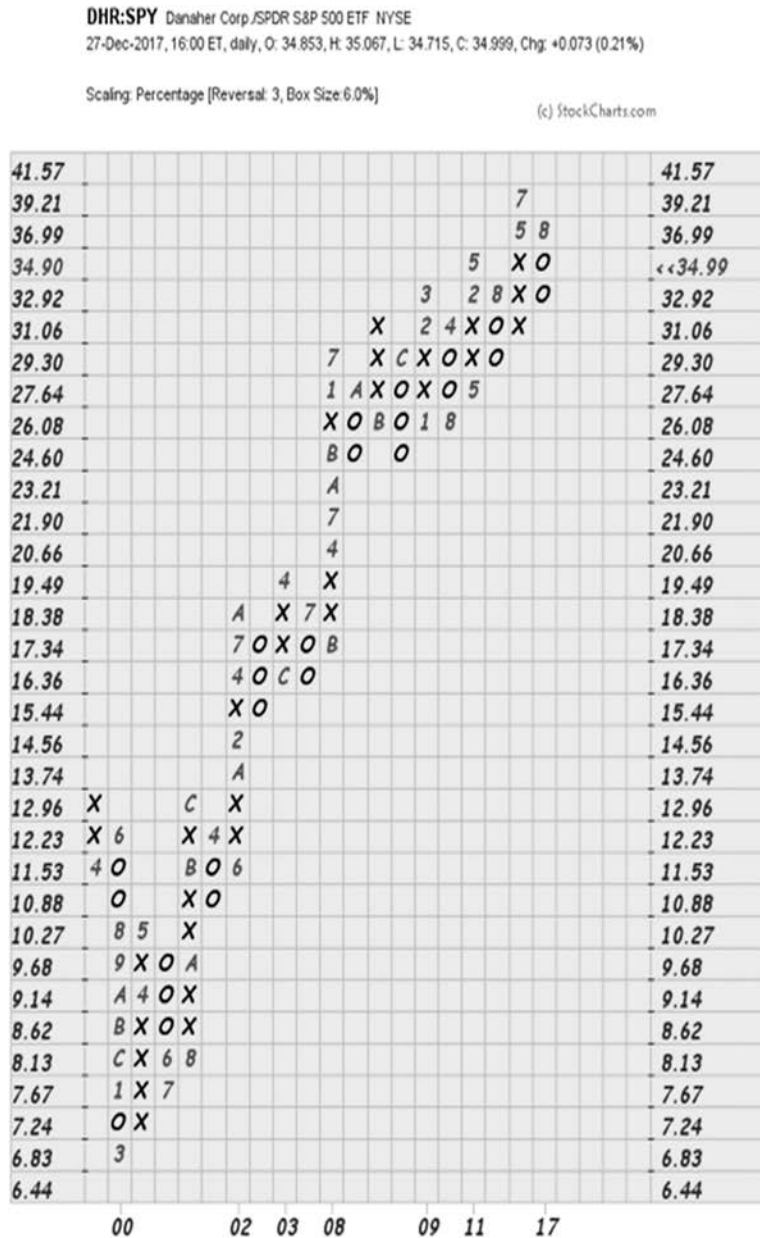


Figure C.16 Relative strength perspective.

and envelopes which have proved productive for some. Bollinger made the concept dynamic, developing a channel whose lines (or bands) are variable depending on volatility.

Bollinger Bands are printed as three lines. The middle line (or band) is a conventional moving average. The upper band is equivalent to the middle band but shifted two standard deviations up. The lower band is similar but shifted two standard deviations down. As volatility varies the bands narrow and widen and technicians look to the position of price



Figure C.17 The dynamic nature of the bands dramatizes the nature of volatility and can be a great aid in trading—usually over the short term. Bollinger recommends 20 periods for the moving average.

relative to the lines to orient their trading. Thus, the bands are useful in lending perspective as prices oscillate. The routine is quite popular and this mention is meant only as an introduction and should inspire the interested student to take up Bollinger's publications to explore this interesting and valuable tool. *Bollinger on Bollinger Bands* may be found at Amazon. (Figure C.17)



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List of Illustrations and Text Diagrams

Regarding the illustrations in this book, except for those which are marked as adapted from other sources, the charts listed as Figures below have been reproduced from the authors' own "working" charts. As such, they were made up originally for private use only and without a thought to their eventual reproduction, much less their publication. They are not and do not pretend to be works of art, but it is hoped that they will, despite their "homemade" appearance, serve the purpose of illustrating the various formations, patterns, market phenomena, and trading principles discussed in the text. That they do not show the clean line and expert lettering of a professional draftsman's work is regretted. The reader will, we trust, make allowances.

As for their selection, it should be stated most emphatically that it was not necessary to search through thousands of charts in order to find good examples of all these various technical formations. Many dozens, even hundreds, were available for practically every type of pattern. Anyone who has learned to recognize them can find for himself plenty of good technical pictures in a quick examination of even as small a portfolio as 50 or 100 charts. In other words, the illustrations in this book are in no sense unique. In selecting them, we have tried only to show as much variety as possible and samples from previous as well as more recent market history.

Perhaps it is not necessary, but it is at least in accord with custom, to add that the information as to specific market prices, volume of transactions, etc., used in preparing our illustrations (or cited in the text of this book) has been derived from sources believed to be reliable, but is not guaranteed.

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Glossary

EN: The Glossary is the work of the distinguished editor of the seventh edition, Richard McDermott. Minor changes are so noted.

EN9: Some entries are written by other analysts, whose names are noted.

Although it requires the use of the human brain and some discrimination and judgment, the great virtue of Magee chart analysis is it allows the practitioner to evaluate how well number-driven indicators function. As, for example, use of a Moving Average to identify the trend works wonderfully well in a trending market. If used as a signal generator in a trading market, results will come in whipsaws. Similarly, oscillators often are useful in trading markets but can mislead the trader when the market begins to trend. The reasonably accomplished chart analyst can recognize the state of the market and view the performance of number-driven indicators from a more informed perspective. Thus, the reader should keep this in mind while reading about the Average Directional Movement Index and suchlike.

ACCUMULATION—The first phase of a Bull Market. The period when farsighted investors begin to buy shares from discouraged or distressed sellers. Financial reports are usually at their worst and the public is completely disgusted with the stock market. Volume is only moderate but beginning to increase on the rallies.

ACTIVITY—See Volume.

ADX (Average Directional Movement Index)—The ADX is a trend-following indicator devised by Welles Wilder (Wilder Relative Strength Index) and is based on the concept of directional movement. It is designed to evaluate the trending characteristics of a security. The ADX is frequently used to avoid trendless markets, and signals when a trend reaches a profitable trading level. In a trendless market, the ADX indicates avoidance.

Directional movement is a measure of the net total price movement during a set period of time. First, the positive and negative directional movements are determined by summing the daily up and down moves. The values obtained are next normalized by dividing them by the "True Range," the absolute value of the total move for the period; this difference between normalized values (expressed as a percentage) is the directional movement.

The ADX is then obtained from directional movement by the use of exponential average and ratios. The ADX is often charted with a second line, the ADXR Indicator. ADXR is a smoothed average of the ADX.

A rising ADX indicates significant directional movement and the beginning of a good trading period. The declining ADX is shown during a poor period for trend following. Normally, an ADX Indicator above 25 signals significant directional movement and good trading.

APEX—The highest point; the pointed end, tip, of a Triangle.

ARBITRAGE—The simultaneous buying and selling of two different, but closely related, instruments to take advantage of a disparity in their prices in one market or different markets.

EN: Those who buy the acquirer and sell the acquired in takeover situations—sometimes called “arbs” or arbitrageurs—are ersatz or faux arbitrageurs; they are really spreaders. Arbitrageur is a solecism used in that sense. It is also a false cognate to the French.

AREA GAP—See Common Gap.

AREA PATTERN—When a stock or commodity's upward or downward momentum has been temporarily exhausted, the ensuing sideways movement in the price usually traces out a design or arrangement of form called an Area Pattern. The shape of some of these Area Patterns, or Formations, has predictive value under certain conditions. (See also Ascending Triangle, Broadening Formations, Descending Triangle, Diamond, Flag, Head-and-Shoulders Pattern, Inverted Triangle, Pennant, Rectangle, Right-Angle Triangles, Symmetrical Triangles, and Wedges.)

ARITHMETIC SCALE—Price or volume scale where the distance on the vertical axis (i.e., space between horizontal lines) represents equal amounts of dollars or number of shares.

ASCENDING (PARALLEL) TREND CHANNEL—When the tops of the rallies composing an advance develop along a line (sometimes called a Return Line), which is also parallel to the basic Up Trendline (i.e., the line that slopes up across the wave bottoms in an advance); the area between the two lines is called an Ascending or Up Channel.

ASCENDING (UP) TRENDLINE—The advancing wave in a stock or commodity is composed of a series of ripples. When the bottoms of these ripples form on, or very close to, an upward-slanting straight line, a basic Ascending or Up Trendline is formed.

ASCENDING TRIANGLE—One of a class of Area Patterns called Right-Angle Triangles. The class is distinguished by the fact that one of the two boundary lines is practically horizontal, whereas the other slants toward it. If the top line is horizontal and the lower slants upward to an intersection point to the right, the resulting Area Pattern is called Ascending Triangle. The implication is Bullish, with the expectant breakout through the horizontal line. Measuring Formula: add the broadest part of triangle to the breakout point.

AT-THE-MONEY—An option, the strike price of which is equal to the market price of the underlying instrument.

AVERAGES—See Dow-Jones Industrial Averages, Moving Averages, Dow-Jones Transportation Averages, and Dow-Jones Utility Averages.

AVERAGING COST—An investing technique in which the investor buys a stock or commodity at successively lower prices, thereby “averaging down” his average cost of each

stock share or commodity contract. Purchases at successively higher prices would “average up” the price of stock shares or commodity contracts.

EN: A very foolish technique for the amateur.

AXIS—In the graphic sense, an axis is a straight line for measurement or reference. It is also the line, real or imagined, on which a formation is regarded as rotating.

BALANCED PROGRAM—Proportioning capital, or a certain part of capital, equally between the long side and the short side of the market.

BAR CHART—Also called a Line Chart. A graphic representation of prices using a vertical bar to connect the highest price in the time period to the lowest price. Opening prices are noted with a small horizontal line to the left. Closing prices are shown with a small horizontal line to the right. Bar charts can be constructed for any time period in which prices are available. The most common time periods found in bar charts are hourly, daily, weekly, and monthly; however, with the growing number of personal computers and the availability of “real-time” quotes, it is not unusual for traders to use some period of minutes to construct a bar chart.

BASIC TRENDLINES—See Trendlines.

BASING POINT—The price level in the chart that determines where a stop-loss point is placed. As technical conditions change, the Basing Point, and stops, can be advanced (in a rising market), or lowered (in a falling market). (See Progressive Stops.)

BASIS POINTS—The measure of yields on bonds and notes. One Basis Point equals 0.01% of yield.

BASKET TRADES—Large transactions made up of a number of various stocks.

BEAR MARKET—In its simplest form, a Bear Market is a period when prices are primarily declining, usually for a long period of time. Bear Markets generally consist of three phases. The first phase is distribution, the second is panic, and the third is akin to a washout, during which those investors who have held through the first two phases finally give up and liquidate.

BENT NECKLINE—See Neckline.

BETA—A measurement of an individual stock’s sensitivity to market swings.

BETA (COEFFICIENT)—A measure of the market or non-diversifiable risk associated with any given security in the market.

BLOCK TRADES—Large transactions of a particular stock sold as a unit.

BLOW-OFF—See Climactic Top.

BLUE CHIPS—The nickname given to high-priced companies with good records of earnings and price stability; also called gilt-edged securities. Examples include IBM, AT&T, General Motors, and General Electric.

BLUE PARALLEL—A line drawn parallel to the trendline (Blue Trendline) that connects at least two highs. The Blue Parallel is started off a low and used to estimate the next low point.

BLUE TRENDLINE—A straight line connecting two or more Tops together. To avoid confusion, Edwards and Magee use a blue line for Top Trendlines and a red line for Bottom Trendlines.

BOLLINGER BANDS (BB)—An envelope, in the form of two lines, that surrounds the price bars on a chart. Bollinger Bands are plotted two standard deviations away from a Simple Moving Average. This is the primary difference between Bollinger Bands and other envelopes. Envelopes are plotted a fixed percentage above and below a Moving Average. As standard deviation is a measure of volatility, Bollinger Bands adjust themselves to differing market conditions. The bands grow wider during volatile market periods and narrower during less volatile periods.

Bollinger's premise is to ask the market what it is doing, rather than to tell it what to do. He focused on volatility with the use of standard deviation to set the bandwidth. The bands are normally plotted two deviations away from the standard deviation, which is effectively a 20-day Moving Average Line. The plot is valid if an average acts as a Support Line on market corrections. If the average is penetrated on corrections, it is too short. Bollinger recommends 10-day Moving Averages for short-term trading, 20-day for intermediate-term trading, and 50-day for long-term trading. Deviations also need to be adjusted: 10 days can use 1.5 deviations, 20 days use 2 deviations, and 50 days use 2.5 deviations. The nature of the time periods does not matter; the bands can be used on monthly, weekly, daily, and even intraday figures.

Bollinger Bands do not usually generate buy and sell signals alone. Most often, they provide a framework within which price may be related to other indicators. Bollinger recommends using the bands in relation to other buy and sell signals. However, the bands can be an integral part of the signal. If a price touches an upper band and indicator action confirms it, no sell signal is generated (it is a continuation signal if a buy signal was in effect). If a price touches an upper band and an indicator does not confirm (diverges), it is a sell signal. If a Top Price Chart Formation is formed outside the bands and is followed by a second Top inside the bands, a sell signal is generated. The exact opposite is true on the buy side.

When combined with other indicators, such as the Relative Strength Index (RSI), the Bollinger Bands become quite powerful. RSI is an excellent indicator with respect to overbought and oversold conditions. Generally, when price touches the upper Bollinger Band and RSI is below 70, it is an indication that the trend will continue. Conversely, when price touches the lower Bollinger Band, and RSI is above 30, it is an indication the trend should continue. If a situation occurs in which price touches the upper Bollinger Band and RSI is above 70 (possibly approaching 80), it is an indication that the trend may reverse itself and move downward. On the other hand, if price touches the lower Bollinger Band and RSI is below 30 (possibly approaching 20), the trend may reverse itself and move upward. (See also Multicolincarity, Percent B, Wilder Relative Strength Index.)

BOOK VALUE—The conventional accounting measure of what a stock is worth based on the value of the company's assets less the company's debt. Eminently manipulable.

BOTTOM—See Ascending Triangle, Dormant Bottom, Double Bottom, Head-and-Shoulders Bottom, Rounding Bottom, and Selling Climax.

BOUNDARY—The edges of a pattern. **BOWL**—See Rounding Bottom.

BRACKETING—A trading range market or a price area that is non-trending.

BREAKAWAY GAP—The hole or gap in the chart created when a stock or commodity breaks out of an Area Pattern.

BREAKOUT—When a stock or commodity exits an area pattern.

BROADENING FORMATION—Sometimes called Inverted Triangles, these are formations that start with narrow fluctuations that widen out between diverging, rather than converging, boundary lines. (See also Broadening Top, Diamond Patterns, Head-and-Shoulders Pattern, and Right-Angled Broadening Formations.)

BROADENING TOP—An Area Reversal Pattern that may evolve in any one of three forms, comparable in shape, respectively, to inverted Symmetrical, Ascending, or Descending Triangles. Unlike Triangles, the Tops and Bottoms of these patterns do not necessarily stop at clearly marked diverging boundary lines. Volume tends to be unusually high and irregular throughout pattern construction. No Measuring Formula is available.

BULL MARKET—A period when prices are primarily rising, normally for an extended period. Usually, but not always, divisible into three phases. The first phase is accumulation. The second phase is one of fairly steady advance with increasing volume. The third phase is marked by considerable activity as the public begins to recognize and attempt to profit from the rising market.

CALL OPTION—An option that gives the buyer the right to buy the underlying contract at a specific price within a certain period, and that obligates the seller to sell the contract for the premium received before expiration of the designated time period.

CANDLESTICKS—A Japanese graphic representation of price action using the same data as bar charts, but that adds color to the candlestick (or data) to indicate the direction of prices from the opening (see Nison, Bibliography.)

CATS AND DOGS—Low-priced stocks of no investment value.

CHANNEL—If the Tops of the rallies and Bottoms of the reactions develop lines that are approximately parallel to one another, the area between these lines is called a Channel. (See also Ascending Trend Channel, Descending Trend Channel, and Horizontal Trend Channel.)

CHART—A graphic representation of a stock or commodity in terms of price and/or volume. (See also Bar Chart and Point and Figure Chart.)

CLEAN-OUT DAY—See Selling Climax.

CLIMACTIC TOP—A sharp advance, accompanied by extraordinary volume, that is, much larger volume than the normal increase, which signals the final “blow-off” of the trend, followed by either a Reversal, or at least by a period of stagnation, formation of Consolidation Pattern, or a Correction.

CLIMAX DAY—See One-Day Reversal.

CLIMAX, SELLING—See Selling Climax.

CLOSING PRICE—The last sale price of the trading session for a stock. In a commodity, it represents an official price determined from a range of prices deemed to have traded at or on the close; also called a settlement price.

CLOSING THE GAP—When a stock or commodity returns to a previous gap and retraces the range of the gap. Also called covering the gap or filling the gap. (See also Gap.)

COIL—Another term for a Symmetrical Triangle.

COMMISSION—The amount charged by a brokerage house to execute a trade in a stock, option, or commodity. In a stock, option, or commodity, a commission is charged for each purchase and each sale. In a commodity, a commission is charged only when the original entry trade has been closed with an offsetting trade. This is called a round turn commission.

COMMON GAP—Also called Area Gap. Any hole or gap in the chart occurring within an Area Pattern. The forecasting significance of the Common Gap is nil. (See also Gap.)

COMPARATIVE RELATIVE STRENGTH—Compares the price movement of a stock with that of its competitors, industry group, or the whole market.

COMPLEX HEAD-AND-SHOULDERS—Also called Multiple Head-and-Shoulders. It is a Head-and-Shoulders Pattern with more than one right and left shoulder and/or head. (See also Head-and-Shoulders Pattern.)

COMPOSITE AVERAGE—A stock average composed of the 65 stocks that make up the Dow–Jones Industrial Average and the Dow–Jones Utility Average.

COMPOSITE LEVERAGE—In Edwards and Magee, it is a formula for combining the principal factors affecting a given sum of capital used (i.e., sensitivity, price, and margin) into one index figure.

CONFIRMATION—In a pattern, it is the point at which a stock or commodity exits an Area Pattern in the expected direction by an amount of price and volume sufficient to meet minimum pattern requirements for a *bona fide* breakout. In the Dow Theory, it means both the Industrial Average and the Transportation Average have registered new highs or lows during the same advance or decline. If only one of the Averages establishes a new high (or low) and the other one does not, it would be a non-confirmation, or Divergence. This is also true of oscillators. To confirm a new high (or low) in a stock or commodity, an oscillator

needs to reach a new high (or low) as well. Failure of the oscillator to confirm a new high (or low) is called a Divergence and would be considered an early indication of a potential Reversal in direction.

CONGESTION—The sideways trading from which Area Patterns evolve. Not all Congestion periods produce a recognizable pattern, however.

CONSOLIDATION PATTERN—Also called a Continuation Pattern, it is an Area Pattern that breaks out in the direction of the previous trend. (See also Ascending Triangle, Descending Triangle, Flag, Head-and-Shoulders Continuation, Pennant, Rectangle, Scallop, and Symmetrical Triangle.)

CONTINUATION GAP—See Runaway Gap.

CONTINUATION PATTERN—See Consolidation Pattern.

CONVERGENT PATTERN (TREND)—Those patterns with upper and lower boundary lines that meet, or converge, at some point if extended to the right. (See also Ascending Triangle, Descending Triangle, Symmetrical Triangle, Wedges, and Pennants.)

CORRECTION—A move in a commodity or stock that is opposite to the prevailing trend, but not sufficient to change that trend. Called a rally in a downtrend and a reaction in an uptrend. In the Dow Theory, a Correction is a Secondary Trend against the Primary Trend, which usually lasts from three weeks to three months and retraces from one-third to two-thirds of the preceding swing in the Primary Direction.

COVERING THE GAP—See Closing the Gap.

CRADLE—The intersection of the two converging boundary lines of a Symmetrical Triangle. (See also Apex.)

DAILY RANGE—The difference between the high and low price during one trading day.

DEMAND—Buying interest for a stock at a given price.

DESCENDING (PARALLEL) TREND CHANNEL—When the Bottoms of the reactions comprising a decline develop along a line (sometimes called a Return Line), which is also parallel to the basic down trendlines (i.e., the line which slopes down across the wave tops in a decline), the area between the two lines is called a Descending or Down Channel.

DESCENDING TRENDLINE—The declining wave in a stock or commodity is composed of a series of ripples. When the tops of these ripples form on, or very close to, a downward slanting straight line, a basic Descending or Down Trendline is formed.

DESCENDING TRIANGLE—One of a class of Area Patterns called Right-Angle Triangles. The class is distinguished by the fact one of the two boundary lines is practically horizontal, while the other slants toward it. If the bottom line is horizontal and the upper slants downward to an intersection point to the right, the resulting Area Pattern is called a Descending Triangle. The implication is Bearish, with the expectant breakout through the

flat (horizontal) side. Minimum Measuring Formula: add the broadest part of the Triangle to the breakout point.

DIAMOND—Usually a Reversal Pattern, but it will also be found as a Continuation Pattern. It could be described as a Complex Head-and-Shoulders Pattern with a V-shaped (bent) Neckline, or a Broadening Pattern that, after two or three swings, changes into a regular Triangle. The overall shape is a four-point Diamond. Since it requires a fairly active market, it is more often found at Major Tops. Many Complex Head-and-Shoulders Tops are borderline Diamond Patterns. The major difference is in the right side of the pattern. It should clearly show two converging lines with diminishing volume as in a Symmetrical Triangle. Minimum Measuring Formula: add the greatest width of the pattern to the breakout point.

DISTRIBUTION—The first phase of a Bear Market, which really begins in the last stage of a Bull Market. The period when farsighted investors sense that the market has outrun its fundamentals and begin to unload their holdings at an increasing pace. Trading volume is still high; however, it tends to diminish on rallies. The public is still active but beginning to show signs of caution as hoped-for profits fade away.

DIVERGENCE—When new highs (or lows) in one indicator are not realized in another comparable indicator. (See also Confirmation.)

DIVERGENT PATTERN (TREND)—Those patterns with upper and lower boundary lines that meet at some point if extended to the left. (See also Broadening Formation.)

DIVERSIFICATION—The concept of placing your funds in different industry groups and investment vehicles to spread risk. Not to put all your financial eggs in one basket.

DIVIDENDS—A share of the profits, in cash or stock equivalent, paid to stockholders.

DORMANT BOTTOM—A variation of a Rounding (Bowl) Bottom, but in an extended, flat-bottomed form. It usually appears in “thin” stocks (i.e., those issues with a small number of shares outstanding) and characteristically will show lengthy periods during which no sales will be registered for days at a time. The chart will appear “fly-specked” due to the missing days. The technical implication is for an upside breakout.

DOUBLE BOTTOM—Reversal Pattern. A Bottom formed on relatively high volume that is followed by a rally (of at least 15%), and then a second Bottom (possibly rounded) at the same level (plus or minus 3%) as the first Bottom on lower volume. A rally back though the apex of the intervening rally confirms the Reversal. More than a month should separate the two Bottoms. Minimum Measuring Formula: take the distance from the lowest bottom to the apex of the intervening rally and add it to the apex.

DOUBLE TOP—A high-volume Top is formed, followed by a reaction (of at least 15%) on diminishing activity. Another rally back to the previous high (plus or minus 3%) is made, but on lower volume than the first high. A decline through the low of the reaction confirms the Reversal. The two highs should be more than a month apart. Minimum Measuring Formula: add to the breakout point the distance from the highest peak to the low of the reaction. Also called an “M” Formation.

DOUBLE TRENDLINE—When two relatively close Parallel Trendlines are needed to define the true trend pattern. (See also Trendline.)

DOW-JONES INDUSTRIAL AVERAGE—Developed by Charles Dow in 1885 to study market trends. Originally composed of 14 companies (12 railroads and 2 industrials), the Rails, by 1897, were separated into their own Average, and 12 industrial companies of the day were selected for the Industrial Average. The number was increased to 20 in 1916 and to 30 in 1928. The stocks included in this Average have been changed from time to time to keep the list up to date or to accommodate a merger. The only original issue still in the Average is General Electric.

DOW-JONES TRANSPORTATION AVERAGE—Established at the turn of the century with the new Industrial Average, it was originally called the Rail Average and was composed of 20 railroad companies. With the advent of the airlines industry, the Average was updated in 1970 and the name changed to Transportation Average.

DOW-JONES UTILITY AVERAGE—In 1929, utility companies were dropped from the Industrial Average and a new Utility Average of 20 companies was created. In 1938, the number of issues was reduced to the present 15.

DOWNTICK—A securities transaction at a price lower than the preceding transaction.

DOWNTREND—See Descending Trendline and Trend.

DRAWDOWN or RETRACEMENT—The ebb, or loss, of a portfolio's equity from a relative high to a relative low. Maximum drawdown equals retracement from maximum high point to minimum low point.

END RUN—When a breakout of a Symmetrical Triangle Pattern reverses its direction and trades back through axis Support (if an upside breakout) or Resistance (if a downside breakout), it is termed an *end run around the line*, or *end run* for short. The term is sometimes used to denote breakout failure in general.

EQUILIBRIUM MARKET—A price area that represents a balance between demand and supply.

EXCHANGE-TRADED FUND (ETF)—Funds tracking indexes (e.g., SPY, DIA) or baskets of stocks that trade like stocks and do not involve the investor in membership in a mutual fund. An ideal way to replace mutual fund investing.

EX-DIVIDEND—The day when the dividend is subtracted from the price of the stock.

EX-DIVIDEND GAP—The gap in price caused when the price of a stock is adjusted downward after the dividend payment is deducted.

EXERCISE—The means by which the holder of an option purchases or sells shares of the underlying security.

EXHAUSTION GAP—Relatively wide gap in the price of a stock or commodity that occurs near the end of a strong directional move in the price. These gaps are quickly closed, most

often within two to five days, which helps to distinguish them from Runaway Gaps, which are not usually covered for a considerable length of time. An Exhaustion Gap cannot be read as a Major Reversal, or even necessarily a Reversal. It signals a halt in the prevailing trend, which is ordinarily followed by some sort of area pattern development.

EXPIRATION—The last day on which an option can be exercised.

EXPONENTIAL SMOOTHING—A mathematical method of forecasting that assumes future price action may be forecast by using a weighted average of past periods; a mathematical series in which greater weight is given to more recent price action. A method of trend identification.

FALLING WEDGE—An Area Pattern with two downward-slanting, converging trendlines. Normally, it takes more than three weeks to complete, and volume will diminish as prices move toward the apex of the pattern. The anticipated direction of the breakout in a Falling Wedge is up. Minimum Measuring Formula: a retracement of all the ground lost within the Wedge. (See also Wedge.)

FALSE BREAKOUT or FALSE SIGNAL—A breakout that is confirmed but quickly reverses and eventually leads the stock or commodity to a breakout in the opposite direction. Indistinguishable from premature breakout or genuine breakout when it occurs.

FAN LINES—A set of three secondary trendlines drawn from the same starting high or low that spread out in a Fan shape. In a Primary Uptrend, the fan would be along the tops of the Secondary (Intermediate) Reaction. In a Primary Downtrend, the fan would be along the bottoms of the Secondary (Intermediate) Rally. When the third Fan Line is broken, it signals the resumption of the Primary Trend.

50-DAY MOVING AVERAGE LINE—Is determined by taking the closing price over the past 50 trading days and dividing by 50.

EN: Simple Moving Average for n days consists of summing prices for n days and dividing by n. On n + 1 drop the first day and add the new day to the formula, etc.

FIVE-POINT REVERSAL—See Broadening Pattern.

FLAG—A Continuation Pattern. A flag is a period of congestion, less than four weeks in duration, that forms after a sharp, near-vertical change in price. The upper and lower boundary lines of the pattern are parallel, though both may slant up, down, or sideways. In an uptrend, the pattern resembles a flag flying from a mast, hence the name. Flags are also called Measuring or Half-Mast Patterns because they tend to form at the midpoint of the rally or reaction. Volume tends to diminish during the formation and increase on the breakout. Minimum Measuring Formula: add the distance from the breakout point, which started the preceding “Mast” rally or reaction, to the breakout point of the Flag.

FLOATING SUPPLY—The number of shares available for trading at any given time. Generally, the outstanding number of shares less shares closely held and likely to be unavailable to the public. Shares of a company held by its employee pension fund, for example, would not generally enter the trading stream and could be subtracted from the outstanding shares.

FORMATION—See Area Pattern.

FRONT-MONTH—The first expiration month in a series of months.

FUNDAMENTALS—Information on a stock pertaining to the business of the company and how it relates to earnings and dividends. In a commodity, it would be information on any factor that would affect supply or demand.

EN: Also, earnings, profits, profit margins, cash flow, sales, and other statistics sometimes used to obfuscate the value of the issue.

GAP—A hole in the price range that occurs when either (1) the lowest price at which a stock or commodity is traded during any time period is higher than the highest price at which it was traded on the preceding time period, or (2) the highest price of one time period is lower than the lowest price of the preceding time period. When the ranges of the two time periods are plotted, they will not overlap or touch the same horizontal level on the chart—there will be a price gap between them. (See also Common or Area Gap, Ex-Dividend Gap, Breakaway Gap, Runaway Gap, Exhaustion Gap, and Island Reversal.)

GRAPH—See Chart.

HALF-MAST—See Flag. Edwards said, “The Flag flies at half-mast,” referring to the tendency of prices to consolidate halfway through a surging vertical run.

HEAD-AND-SHOULDERS BOTTOM—Area Pattern that reverses a decline. (See also Head-and-Shoulders Pattern.) *EN: An upside-down name for an upside-down pattern. (See Kilroy Bottom.)*

HEAD-AND-SHOULDERS CONSOLIDATION—Area Pattern that continues the previous trend. (See also Head-and-Shoulders Pattern.)

HEAD-AND-SHOULDERS PATTERN—Although occasionally an Inverted Head-and-Shoulders Pattern (called a Consolidation Head-and-Shoulders) will form, which is a Continuation Pattern, in its normal form, this pattern is one of the more common and more reliable of the Major Reversal Patterns. It consists of the following four elements (a Head-and-Shoulders Top will be described for illustration): (1) a rally that ends a more or less extensive advance on heavy volume, and that is then followed by a Minor Reaction on less volume; this is the left shoulder; (2) another high-volume advance that exceeds the high of the left shoulder, followed by another low-volume reaction that takes prices down to near the bottom of the preceding reaction, and below the top of the left shoulder high; this is the head; (3) a third rally, but on decidedly less volume than accompanied either of the first two advances, and that fails to exceed the high established on the head; this is the right shoulder; and (4) a decline through a line drawn across the proceeding two reaction lows (the neckline), and a close below that line equivalent to 3% of the stock's market price. This is the confirmation of the breakout. A Head-and-Shoulders Bottom, or any other combination Head-and-Shoulders Pattern, contains the same four elements. The main difference between a Top Formation and a Bottom Formation is in the volume patterns. The breakout in a Top can be on low volume. The breakout in a Bottom must show

a “conspicuous burst of activity.” Minimum Measuring Formula: add the distance between the head and neckline to the breakout point.

HEAD-AND-SHOULDERS TOP—Area Pattern that reverses an advance. (See also Head-and-Shoulders Pattern.)

HEAVY VOLUME—The expression “heavy volume,” as used by Edwards and Magee, means heavy only with respect to the recent volume of sales in the stock you are watching.

HEDGING—To try to lessen risk by making a counterbalancing investment. In a stock portfolio, an example of a hedge would be to buy 100 shares of XYZ stock, and to buy one put option of the same stock. The put would help protect against a decline in the stock, but it would also limit potential gains on the upside. (See also Natural Hedge.)

HISTORICAL DATA—A series of past daily, weekly, or monthly market prices.

HOOK DAY—A trading day in which the open is above/below prior day’s high/low and the close is below/above prior day’s close with narrow range.

HORIZONTAL CHANNEL—When the Tops of the rallies and Bottoms of the reactions form along lines that are horizontal and parallel to one another, the area in between is called a Horizontal Trend Channel. It may also be called a Rectangle during the early stages of formation.

HORIZONTAL TRENDLINE—A horizontal line drawn across either the Tops or Bottoms in a sideways trending market.

HYBRID HEAD-AND-SHOULDERS—A small Head-and-Shoulders Pattern within a larger Head-and-Shoulders Pattern. (See also Head-and-Shoulders Pattern.)

INDUSTRIAL AVERAGE—See Dow–Jones Industrial Average.

INSIDE DAY—A day in which the daily price range is totally within the prior day’s daily price range.

INSIDERS—Individuals who possess fundamental information likely to affect the price of a stock, but which is unavailable to the public. An example would be an individual who knows about a merger before it is announced to the public. Trading by insiders on this type of information is illegal.

INTERMEDIATE TREND—In Edwards and Magee, the term Intermediate or Secondary refers to a trend (or pattern indicating a trend) against the Primary (Major) Trend, which is likely to last from three weeks to three months, and which may retrace one-third to two-thirds of the previous Primary Advance or Decline.

INVERTED BOWL—See Rounding Top.

INVERTED TRIANGLE—See Right-Angled Broadening Triangle.

ISLAND REVERSAL—A compact trading range, usually formed after a fast rally or reaction, which is separated from the previous move by an Exhaustion Gap, and from the move in the opposite direction that follows by a Breakaway Gap. The result is an Island of prices detached by a gap before and after. If the trading range contains only one day, it is called a One-Day Island Reversal. The two gaps usually occur at approximately the same level. By itself, the pattern is not of major significance, but it does frequently send prices back for a complete retracement of the Minor Move which preceded it.

KILROY BOTTOM—The editor's contribution to the nomenclature. A more descriptive term for the undescriptive "Head-and-Shoulders Bottom."

LADDERING—A practice some Wall Street underwriters used in the Tulipomania of the 1990s. Consists of selling initial public offering (IPO) shares for the pre-opening price to insider customers in exchange for their agreement to buy more in the public offering at higher prices. Caused extreme volatility and big run ups in early days of IPOs. An unethical form of price manipulation.

LEVERAGE—Using a smaller amount of capital to control an investment of greater value. For example, exclusive of interest and commission costs, if you buy a stock on 50% margin, you control \$1.00 of stock for every \$0.50 invested or leverage of 2-to-1.

LEVERAGE SPACE PORTFOLIO—Ralph Vince uses drawdown as the risk metric for portfolios (as does this editor) instead of variance in returns. A sophisticated method for determining portfolio risk and trade size and optimizing portfolio growth.

LIMIT MOVE—A change in price that exceeds the limits set by the exchange on which the futures contract is traded.

LIMIT ORDER—A buy or sell order limited in some way, usually in price. For example, if you placed a limit order to buy IBM at 100, the broker would not fill the order unless he could do so at your price or better (i.e., at 100 or lower).

LIMIT UP, LIMIT DOWN—Commodity exchange restrictions on the maximum upward or downward movements permitted in the price for a commodity during any trading session day.

LINE, DOW THEORY—A Line in the Dow Theory is an Intermediate Sideways Movement in one or both of the Averages (Industrial and/or Transportation) in the course of which prices fluctuate within a range of 5% (of mean price) or less.

LOGARITHMIC SCALE—See Semilogarithmic Scale.

MAJOR TREND—In Edwards and Magee, the term Major (or Primary) refers to a trend (or pattern leading to such a trend) that lasts at least one year and shows a rise or decline of at least 20%.

MARGIN—The minimum amount of capital required to buy or sell a stock. The rate, 50% of value in 2005, is set by the government. In a commodity, margin is also the minimum, usually about 10%, needed to buy or sell a contract. The rate is set by the individual

exchanges. The two differ in cost as well. In a stock, the broker lends the investor the balance of the money due and charges interest for the loan. In a commodity, margin is treated as a good faith payment. The broker does not lend the difference, so no interest expense is incurred.

MARKET ON CLOSE—An order specification that requires the broker to get the best price available on the close of trading.

MARKET ORDER—An instruction to buy or sell at the price prevailing when the order reaches the floor of the exchange.

MARKET RECIPROCAL—Normal average range of a stock based on the average range for a number of years, divided by the current average range. The result is the reciprocal of the market movement for the period. Wide market activity, for example, would show a small decimal, less than 1. Dull trading would be a larger number.

MAST—The vertical rally or reaction preceding a Flag or Pennant Formation.

McCLELLAN OSCILLATOR—An Index based on New York Stock Exchange net advances over declines. It provides a measure of such conditions as overbought/oversold and market direction on a short- to intermediate-term basis. The McClellan Oscillator measures a Bear Market Selling Climax when registering a very negative reading like -150 . A sharp buying pulse in the market is indicated by a very positive reading, well above 100.

MEASURING FORMULAE—There are certain patterns that do allow the chartist the opportunity to project at least an interim target level of the direction of the Primary Trend. The most important of these patterns are found to be Triangles, Rectangles, Head-and-Shoulders, and Pennants and Flags.

- **Triangles**—When a stock breaks out of a Symmetrical Triangle (either up or down), the ensuing move should carry at least as far as the height of the Triangle as measured along its first reaction.
- **Rectangles**—The minimum you would expect from a breakout (up or down) out of a Rectangle Pattern would be the distance equal to the height of the formation.
- **Head-and-Shoulders Tops/Bottoms**—The Head-and-Shoulders Pattern has one of the better measuring sticks. In either a Top or Bottom, the interim target, once the neckline is penetrated, is the distance from the Top (or Bottom) of the head to the level of the neckline directly below (above) the head.
- **Pennants and Flags**—The one thing to remember about these Continuation Patterns is they “fly at half-mast.” In other words, the leg in equals the leg out.

MEASURING GAP—See Runaway Gap.

MEGAPHONES—Megaphones are Broadening Tops. The Broadening Formation may evolve in any one of the three forms comparable, respectively, to Inverted Symmetrical, Inverted Ascending, or Descending Triangles. The symmetrical type, for example, consists of a series of price fluctuations across a horizontal axis, with each Minor Top higher and each Minor Bottom lower than its predecessor. The pattern may thus be roughly marked

off by two diverging lines, the upper sloping up from left to right, the lower sloping down. These Broadening Patterns are characteristically loose and irregular, whereas Symmetrical Triangles are regular and compact. The converging boundary lines of Symmetrical Triangles are clearly defined, as a rule. Tops and Bottoms within the formation tend to fall within fair precision on these boundary lines. In the Broadening Formation, the rallies and declines usually do not all stop at clearly marked boundary lines and are subject to spikes. We could call this a Megaphone Spike because the formation keeps on crowding at the lines to look like a megaphone. It has a tendency to spike down more than up.

MELON—A handsome rich dividend.

MINOR TREND—In Edwards and Magee, the term Minor refers to brief fluctuations (usually less than six days and rarely longer than three weeks) that, in total, make up the Intermediate Trend.

MOMENTUM INDICATOR—A market indicator utilizing volume statistics for predicting the strength or weakness of a current market and any overbought or oversold conditions and to distinguish turning points within the market.

MOVING AVERAGE—A mathematical technique to smooth data. It is called moving because the number of elements are fixed, but the time interval advances. Old data must be removed when new data are added, which causes the average to “move along” with the progression of the stock or commodity.

EN: Simple Moving Average for n days consists of summing prices for n days and dividing by n . On $n + 1$, drop the first day and add the new day to the formula, etc.

MOVING AVERAGE CONVERGENCE/DIVERGENCE (MACD)—An oscillator derived by dividing one Moving Average by another. Basically, it combines three Moving Averages into two lines. In today’s computer programs, the Moving Averages are usually exponentially weighted, thus giving more weight to the more recent data. It is plotted in a chart with a horizontal Equilibrium Line.

The Equilibrium Line is important. When the two Moving Averages cross below the Equilibrium Line, it means the shorter Exponential Moving Average (EMA) is at a value less than the longer EMA. This is a Bearish signal. When the EMAs are above the Equilibrium Line, it means the shorter EMA has a value greater than the longer EMA. This is a Bullish signal.

The first line is the difference between a 12-period EMA and a 26-period EMA. The second line (signal line) is an approximate exponential equivalent of a nine-period Moving Average of the first line. The exponential values being 0.15, 0.075, and 0.20.

An MACD can be displayed as a line oscillator or a histogram.

Buy signals are generated when the faster Moving Average Line crosses the slower Moving Average Line from below. Sell signals come from the opposite, when the faster line crosses the slower line from above. Beware of mechanically trading every MACD crossover; it can lead to whipsaws and drawdowns with substance. The fact is, narrow trading ranges give many false signals that can be avoided with additional interpretation.

MOVING AVERAGE CROSSEVERS—The point at which the various Moving Average Lines pass through or over each other.

MULTICOLINCARITY—The flawed procedure of using the identical data to supply different types of indicators. The indicators will all confirm each other because they are based on the same data. Combining RSI, Moving Average Convergence/Divergence (MACD), and rate of change (where all indicators use the same closing prices and relative time periods) should provide the same signals, but they could easily be incorrect. Multicollinearity can be avoided by using one indicator based on closing prices, another from volume, and a third from price ranges. It can also be avoided by using data-generated indicators compared to chart patterns. (See also Bollinger Bands, MACD, Wilder Relative Strength Index.)

MULTIPLE HEAD-AND-SHOULDERS PATTERN—See Complex Head-and-Shoulders.

NARROW RANGE DAY—A trading day with a narrower price range relative to the previous day's price range.

NATURAL and UNNATURAL METHODS or SYSTEMS—Bassetti's half-humorous identification of "natural methods" of analysis, such as chart analysis, which looks directly at market data, as opposed to "unnatural methods," which place an algorithm between the data and the analysis, such as Moving Averages, oscillators, and so on.

NATURAL HEDGE—Bassetti's formulation of a technique recommended by Magee whereby a portfolio is always somewhat long and somewhat short. It is an imperfect hedge intended to cushion downside (or upside) risks—for example, long the DIA and short its members (or their proxies) which are in downtrends.

NECKLINE—In a Head-and-Shoulders Pattern, it is the line drawn across the two reaction lows (in a Top), or two rally highs (in a Bottom), which occur before and after the head. This line must be broken by 3% to confirm the Reversal. In a Diamond Pattern, which is similar to a Head-and-Shoulders Pattern, the neckline is bent in the shape of a V or inverted V. (See also Diamond and Head-and-Shoulders Pattern.)

NEGATIVE DIVERGENCE—When two or more Averages, indexes, or indicators fail to show confirming trends.

NORMAL RANGE FOR PRICE—*EN: An analytical tool invented by Magee for measuring the volatility of stocks. Cumbersome in the modern context, but interesting. Described in Appendix A, ninth edition.*

NUMBER-DRIVEN TECHNICAL ANALYSIS—The use of statistics and algorithms to analyze the market instead of pure chart analysis. Moving Averages and oscillators are examples as are stochastic. There are innumerable indicators of this type. Although having many virtues, it places an algorithm between the price and the analyst.

ODD LOT—A block of stock consisting of fewer than 100 shares.

ON BALANCE VOLUME (OBV)—OBV is a popular Volume Indicator, developed by Joseph Granville. Constructing an OBV line is very simple: the total volume for each day is assigned a positive or negative value depending on whether prices closed higher or lower that day. A higher close results in the volume for that day getting a positive value, whereas a lower close results in a negative value. A running total is kept by adding or subtracting each day's

volume based on the direction of the close. The direction of the OBV line is watched, not the actual volume numbers. Formula:

- If Today's Close > Yesterday's Close, then $OBV = \text{Yesterday's OBV} + \text{Today's Volume}$
- If Today's Close < Yesterday's Close, then $OBV = \text{Yesterday's OBV} - \text{Today's Volume}$
- If Today's Close = Yesterday's Close, then $OBV = \text{Yesterday's OBV}$

ONE-DAY REVERSAL—See Island Reversal.

OPTION—The right granted to one investor by another to buy (called a call option) or sell (called a put option) 100 shares of stock, or one contract of a commodity, at a fixed price for a fixed period of time. The investor granting the right (the seller of the option) is paid a nonrefundable premium by the buyer of the option.

OPTIONS RESEARCH, INC.—Founded by Blair Hull, later of Hull Trading Co. The first company to computerize the Black–Scholes Model.

ORDER—See Limit Order, Market Order, and Stop Order.

OSCILLATOR—A form of momentum or rate-of-change indicator usually valued from +1 to -1 or from 0% to 100%.

OVERBOUGHT—Market prices that have risen too steeply and too quickly.

OVERBOUGHT/OVERSOLD INDICATOR—An indicator that attempts to define when prices have moved too far and too quickly in either direction, and thus are liable to a reaction.

OVERSOLD—Market prices that have declined too steeply and too quickly.

PANIC—The second stage of a Bear Market when buyers thin out and sellers sell at any price. The downward trend of prices suddenly accelerates into an almost vertical drop, whereas volume rises to climactic proportions. (See also Bear Market.)

PANIC BOTTOM—See Selling Climax.

PASSIVE INDEXER—Investor who invests in a major index and holds it through up and down waves.

PATTERN—See Area Pattern.

PEAK—See Top.

PENETRATION—The breaking of a pattern boundary line, trendline, or Support and Resistance Level.

PENNANT—A Pennant is a Flag with converging, rather than parallel, boundary lines. (See also Flag.)

POINT AND FIGURE CHART—A method of charting believed to have been created by Charles Dow. Each day the price moves by a specific amount (the arbitrary box size), an X (if up) or O (if down) is placed on a vertical column of squared paper. As long as prices do not change direction by a specified amount (the Reversal), the trend is considered to be in force and no new column is made. If a Reversal takes place, another vertical column is started immediately to the right of the first, but in the opposite direction. There is no provision for time on a Point and Figure Chart.

PREMATURE BREAKOUT—A breakout of an Area Pattern, and then a retreat back into the pattern. Eventually, the trend will break out again and proceed in the same direction. At the time they occur, false breakouts and premature breakouts are indistinguishable from each other or from a genuine breakout.

PRICE/EARNINGS RATIO—Price of stock divided by earnings (which may or may not be real) to give the P/E ratio. Sometimes an unnatural, or imaginary, number.

PRIMARY TREND—See Major Trend.

PROGRAM TRADING—Trades based on signals from various computer programs, usually entered directly from the trader's computer to the market's computer system.

EN: Usually indicates large volume transactions on large baskets of stocks by professional traders.

PROGRESSIVE STOP—A stop order that follows the market up or down. (See also Stop.)

PROTECTIVE STOP—A stop order used to protect gains or limit losses in an existing position. (See also Stop.)

PULLBACK—Return of prices to the boundary line of the pattern after a breakout to the downside. Return after an upside breakout is called a Throwback.

PUT—An option to sell a specified amount of a stock or commodity at an agreed time at the stated exercise price.

RAIL AVERAGE—See Dow-Jones Transportation Average.

RALLY—An increase in price that retraces part of the previous price decline.

RALLY TOPS—A price level that finishes a short-term rally in an ongoing trend.

RANGE—The difference between the high and low during a specific time period.

REACTION—A decline in price that retraces part of the previous price advance.

RECIPROCAL, MARKET—See Market Reciprocal.

RECOVERY—See Rally.

RECTANGLE—A trading area bounded on the Top and the Bottom with horizontal, or near horizontal, lines. A Rectangle can be either a Reversal or Continuation Pattern depending on the direction of the breakout. Minimum Measuring Formula: add the width (difference between Top and Bottom) of the Rectangle to the breakout point.

RED PARALLEL—A line drawn parallel to the trendline (Red Trendline) that connects at least two Bottoms. The Red Parallel (basically a Return Line) is started off a high and used to estimate the next high point.

RED TRENDLINE—A straight line connecting two or more Bottoms together. To avoid confusion, Edwards and Magee use a red line for Bottom Trendlines and a blue line for Top Trendlines.

RELATIVE STRENGTH (RS or RS INDEX)—A stock's price movement over the past year as compared with a market index (most often the Standard & Poor's 500 Index). Value below 1 means the stock shows relative weakness in price movement (underperformed the market); a value above 1 means the stock shows relative strength over the one-year period. Equation for Relative Strength:

$$\frac{\text{Current Stock Price/Year-Ago Stock Price}}{\text{Current S\&P 500/Year-Ago S\&P 500}}$$

(See also Wilder Relative Strength Index.)

RESISTANCE LEVEL—A price level at which a sufficient supply of stock is forthcoming to stop, and possibly turn back for a time, an uptrend.

RETRACEMENT—A price movement in the opposite direction of the previous trend.

RETURN LINE—See Ascending or Descending Trend Channels.

REVERSAL GAP—A chart formation where the low of the last day is above the previous day's range with the close above midrange and above the open.

REVERSAL PATTERN—An Area Pattern that breaks out in a direction opposite to the previous trend. (See also Ascending Triangle, Broadening Formation, Broadening Top, Descending Triangle, Diamond, Dormant Bottom, Double Bottom or Top, Head-and-Shoulders Pattern, Rectangle, Rising or Falling Wedge, Rounding Bottom or Top, Saucer, Symmetrical Triangle, and Triple Bottom or Top.)

RIGHT-ANGLED BROADENING TRIANGLE—Area Pattern with one boundary line horizontal and the other at an angle that, when extended, will converge with the horizontal line at some point to the left of the pattern. Similar in shape to Ascending and Descending Triangles, except they are inverted and look like Flat-Topped or Bottomed Megaphones. Right-Angled Broadening Formations generally carry Bearish implications regardless of which side is flat. But any decisive breakout (3% or more) through the horizontal boundary line has the same forceful significance as does a breakout in an Ascending or Descending Triangle.

RIGHT-ANGLE TRIANGLES—See Ascending and Descending Triangles.

RISING WEDGE—An Area Pattern with two upward-slanting, converging trendlines. Normally, it takes more than three weeks to complete and volume will diminish as prices move toward the apex of the pattern. The anticipated direction of the breakout in a Rising Wedge is down. Minimum Measuring Formula: a retracement of all the ground gained within the wedge.

ROUND LOT—A block of stock consisting of 100 shares of stock.

ROUND TRIP—The cost of one complete stock or commodity transaction, that is, the entry cost and the offset cost combined.

ROUNDING BOTTOM—An Area Pattern that pictures a gradual, progressive, and fairly symmetrical change in the trend from down to up. Both the Price Pattern (along its lows) and the Volume Pattern show a concave shape often called a Bowl or Saucer. There is no minimum measuring formula associated with this Reversal Pattern.

ROUNDING TOP—An Area Pattern that pictures a gradual, progressive, and fairly symmetrical change in the trend from up to down. The Price Pattern, along its highs, shows a convex shape sometimes called an Inverted Bowl. The Volume Pattern is concave shaped (a bowl) as trading activity declines into the peak of the Price Pattern and increases when prices begin to fall. There is no measuring formula associated with this Reversal Pattern.

RUNAWAY GAP—A relatively wide gap in prices that occurs in an advance or decline gathering momentum. Also called a “Measuring Gap” because it frequently occurs at just about the halfway point between the breakout that started the move and the Reversal Day that calls an end to it. Minimum Measuring Formula: take the distance from the original breakout point to the start of the gap and add it to the other side of the gap.

RUNNING MARKET—A market wherein prices are moving rapidly in one direction with very few or no price changes in the opposite direction.

SAUCER—See Rounding Bottom and Scallop.

SCALLOPS—A series of Rounding Bottom (Saucer) Patterns where the rising end always carries prices a little higher than the preceding Top at the beginning of the pattern. Net gains will vary from stock to stock, but there is a strong tendency for it to amount to 10%–15% of the price. The total reaction, from the left-hand Top of each Saucer to its Bottom, is usually in the 20%–30% area. Individual Saucers in a Scallop series are normally five to seven weeks long, and rarely less than three weeks. The volume will show a convex or Bowl Pattern.

SECONDARY TREND—See Intermediate Trend.

SECULAR TREND—A major long-lived trend based in solid economic conditions, as opposed to cyclic or technical.

SELLING CLIMAX—A period of extraordinary volume that comes at the end of a rapid and comprehensive decline that exhausts the margin reserves of many speculators or patience of investors. Total volume turnover may exceed any single day's volume during the previous upswing as Panic Selling sweeps through the stock or commodity. Also called a Clean-Out Day, a Selling Climax reverses the technical conditions of the market. Although it is a form of a One-Day Reversal, it can take more than one day to complete.

SEMILOGARITHMIC SCALE—Price or volume scale in which the distance on the vertical axis (i.e., space between horizontal lines) represents equal percentage changes.

SENSITIVITY—An index used by Edwards and Magee to measure the probable percentage movement (sensitivity) of a stock during a specified percentage move in the stock market as a whole.

EN: More or less equivalent, or with the same intent as beta.

SHAKEOUT—A corrective move large enough to “shake out” nervous investors before the Primary Trend resumes.

SHORT INTEREST—The number of shares that have been sold short and not yet repurchased. This information is published monthly by the New York Stock Exchange.

SHORT SALE—A transaction in which the entry position is to sell a stock or commodity first and to repurchase it (hopefully at a lower price) at a later date. In the stock market, shares you do not own can be sold by borrowing shares from the broker and replacing them when the offsetting repurchase takes place. In the commodity market, contracts are created when a buyer and seller get together through a floor broker. As a result, the procedure to sell in the commodity market is the same as it is to buy.

SHOULDER—See Head-and-Shoulders Pattern.

SMOOTHING—A mathematical approach that removes excess data variability while maintaining a correct appraisal of the underlying trend.

SPIKE—A sharp rise in price in a single day or two.

STOCHASTIC—Random.

STOCHASTICS—The Stochastic Oscillator, developed by George Lane, compares a security's price closing level to its price range over a specific period of time. This indicator shows, Lane theorized, in an upward-trending market, prices tend to close near their high; and during a downward-trending market, prices tend to close near their low. As an upward trend matures, prices tend to close further away from their high; as a downward trend matures, prices tend to close away from their low. The Stochastic Indicator attempts to determine when prices start to cluster around their low of the day in an uptrending market, and cluster around their high in a downtrend. Lane theorizes these conditions indicate a Trend Reversal is beginning to occur. The Stochastic Indicator is plotted as two lines, the %D Line and %K Line. The %D Line is more important than the %K Line. The Stochastic is plotted on a chart with values ranging from 0 to 100. The value can never fall below

0 or above 100. Readings above 80 are considered strong and indicate a price is closing near its high. Readings below 20 are strong and indicate a price is closing near its low. Ordinarily, the %K Line will change direction before the %D Line. However, when the %D Line changes direction prior to the %K Line, a slow and steady Reversal is often indicated. When both %K and %D Lines change direction, and the faster %K Line changes direction to retest a crossing of the %D Line, though does not cross it, the incident confirms stability of the prior Reversal. A powerful move is under way when the Indicator reaches its extremes around 0 and 100. Following a Pullback in price, if the Indicator retests extremes, a good entry point is indicated. Many times, when the %K or %D Lines begin to flatten out, the action becomes an indication the trend will reverse during the next trading range.

STOCK SPLIT—A procedure used by management to establish a different market price for its shares by changing the common stock structure of the company. Usually a lower price is desired and established by canceling the outstanding shares and reissuing a larger number of new certificates to current shareholders. The most common ratios are 2-to-1, 3-to-1, and 3-to-2. Occasionally, a higher price is desired and a reverse split takes place where one new share is issued for some multiple number of old shares.

STOP—A contingency order placed above the current market price if it is to buy, or below the current market price if it is to sell. A stop order becomes a market order only when the stock or commodity moves up to the price of the buy stop, or down to the price of a sell stop. A stop can be used to enter a new position or exit an old position. (See also Protective or Progressive Stop.)

STOP LOSS—See Protective Stop.

SUPPLY—Amount of stock available at a given price.

SUPPLY LINE—See Resistance.

SUPPORT LEVEL—The price level at which a sufficient amount of demand is forthcoming to stop, and possibly turn higher for a time, a downtrend.

SYMMETRICAL TRIANGLE—Also called a Coil. Can be a Reversal or Continuation Pattern. A sideways congestion in which each Minor Top fails to attain the height of the previous rally and each Minor Bottom stops above the level of the previous low. The result is upper and lower boundary lines that converge, if extended, to a point on the right. The upper boundary line must slant down and the lower boundary line must slant up, or it would be a variety of a Wedge. Volume tends to diminish during formation. Minimum Formula: add the widest distance within the Triangle to its breakout point.

TANGENT—See Trendline.

TAPE READER—One who makes trading decisions by watching the flow of New York Stock Exchange and American Stock Exchange price and volume data coming across the electronic ticker tape.

TEKNIPLAT™ PAPER—A specially formatted, two-cycle, semilogarithmic graph paper, with sixth-line vertical accents, used to chart stock or commodity prices. Check <http://www.edwards-magee.com>.

TEST—A term used to describe the activity of a stock or commodity when it returns to, or “tests,” the validity of a previous trendline, or Support or Resistance Level.

THIN ISSUE—A stock with a low number of floating shares and is lightly traded.

THREE-DAYS-AWAY RULE—An arbitrary time period used by Edwards and Magee in marking suspected Minor Tops or Bottoms.

THROWBACK—Return of prices to the boundary line of the pattern after a breakout to the upside. Return after a downside breakout is called a Pullback.

TOP—See Broadening Top, Descending Triangle, Double Top, Head-and-Shoulders Top, Rounding Top, and Triple Top.

TREND—The movement of prices in the same general direction, or the tendency or proclivity to move in a straight line. (See also Ascending, Descending, and Horizontal Parallel Trend Channels, Convergent Trend, Divergent Trend, Intermediate Trend, Major Trend, and Minor Trend.)

TREND CHANNEL—A parallel probable price range centered about the most likely price line.

TRENDING MARKET—Price continues to move in a single direction, usually closing strongly for the day.

TRENDLINE—If we actually apply a ruler to a number of charted price trends, we quickly discover the line most often really straight in an uptrend trend is a line connecting the lower extremes of the Minor Recessions within these lines. In other words, an advancing wave in the stock market is composed of a series of ripples, and the bottoms of each of these ripples tend to form on, or very close to, an upward-slanting straight line. The tops of the ripples are usually less even; sometimes they also can be defined by a straight line, but more often, they vary slightly in amplitude, and so any line connecting their upper tips would be more or less crooked. On a descending price trend, the line most likely to be straight is the one that connects the tops of the Minor Rallies within it, while the Minor Bottoms may or may not fall along a straight edge. These two lines—the one that slants up along the successive wave bottoms within a broad up-move and the one that slants down across successive wave tops within a broad down-move—are the Basic Trendlines. You draw an Up Trendline by drawing the line on the inner side. You draw a Down Trendline by drawing it on the outside. You draw a Sideways Trendline on the bottom.

TRIANGLE—See Ascending Triangle, Descending Triangle, Right-Angled Broadening Triangle, and Symmetrical Triangle.

TRIPLE BOTTOM—Similar to a flat Head-and-Shoulders Bottom, or Rectangle, the three Bottoms in a Triple Bottom.

TRIPLE TOP—An Area Pattern with three Tops widely spaced and with quite deep, and usually rounding, reactions between them. Less volume occurs on the second peak than the

first peak, and still less on the third peak. Sometimes called a “W” Pattern, particularly if the second peak is below the first and third. The Triple Top is confirmed when the decline from the third Top penetrates the Bottom of the lowest valley between the three peaks.

200-DAY MOVING AVERAGE LINE—Determined by taking the closing price over the past 200 trading days and dividing by 200, then repeating the process each succeeding day, always dropping off the earliest day.

UPTICK—A securities transaction made at a price higher than the preceding transaction.

UPTREND—See Ascending Trendline and Trend.

UTILITY AVERAGE—See Dow–Jones Utility Average.

V/D VOLUME—Is the ratio between the daily up-volume to the daily down-volume. It is a 50-day ratio determined by dividing the total volume on those days when the stock closed up from the prior day by the total volume on days when the stock closed down.

VALIDITY OF TRENDLINE PENETRATION—The application of the following three tests when a trendline is broken to determine whether the break is valid or whether the trendline is still basically intact: (1) the extent of the penetration, (2) the volume of trading on the penetration, and (3) the trading action after the penetration.

VALLEY—The V-shaped price action that occurs between two peaks. (See also Double Top and Triple Top.)

VINCE, RALPH—Author of *Handbook of Portfolio Mathematics* where optimal f is described as a quantitative way to achieve optimal allocation and leverage of a portfolio. The Leverage Space Model achieves optimal bet sizing for maximizing gains while minimizing risk.

VOLATILITY—A measure of a stock’s tendency to move up and down in price, based on its daily price history over the latest 12-month period. (See Appendix B, Resources, for the formula.)

VOLUME—The number of shares in stocks or contracts in commodities traded over a specified period of time.

“W” FORMATION—See Triple Top.

WEDGE—A chart formation in which the price fluctuations are confined within converging straight (or practically straight) lines.

WILDER RELATIVE STRENGTH INDICATOR (RSI)—Although relative strength, comparing a security price to a benchmark index price, has been around for some time, this indicator was developed by J. Welles Wilder, as explained in his 1978 book, *New Concepts in Technical Trading*.

Relative Strength is often used to identify price Tops and Bottoms by keying on specific levels (usually “30” and “70”) on the RSI chart, which is scaled from 0 to 100. The RSI can also be useful to show the following:

1. Movement that might not be as readily apparent on the bar chart.
2. Failure Swings above 70 or below 30, warning of coming Reversals.
3. Support and Resistance Levels appear with greater clarity.
4. Divergence between the RSI and price can often be a useful Reversal indicator.

The RSI requires a certain amount of lead-up time to operate successfully.



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